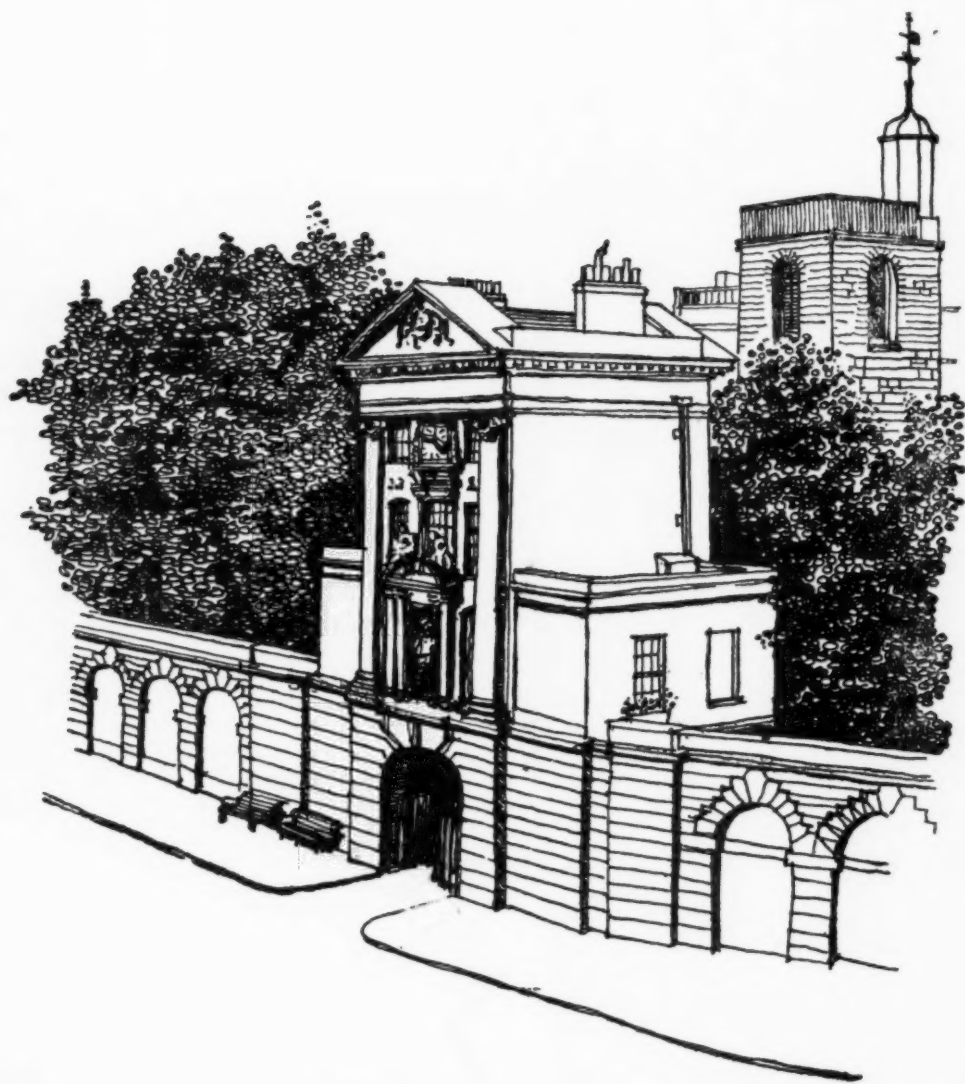


ST. BARTHOLOMEW'S HOSPITAL JOURNAL



VOL LXI

SEPTEMBER 1957

No 9

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Editor: J. K. CHONG.

Sports Editor: R. J. MITCHELL.

Manager: C. J. CARR.

Assistant Manager: M. I. D. CAWLEY.

Women's Representative: Miss J. CHAMBERS.

Charterhouse Representative: Miss A. M. MACDONALD.

September 1957

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A Case of Idiopathic Sub-acute Necrosis of the Liver by R. C. Cook	280		



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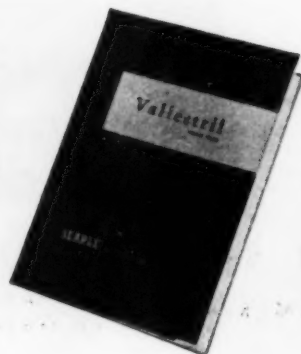
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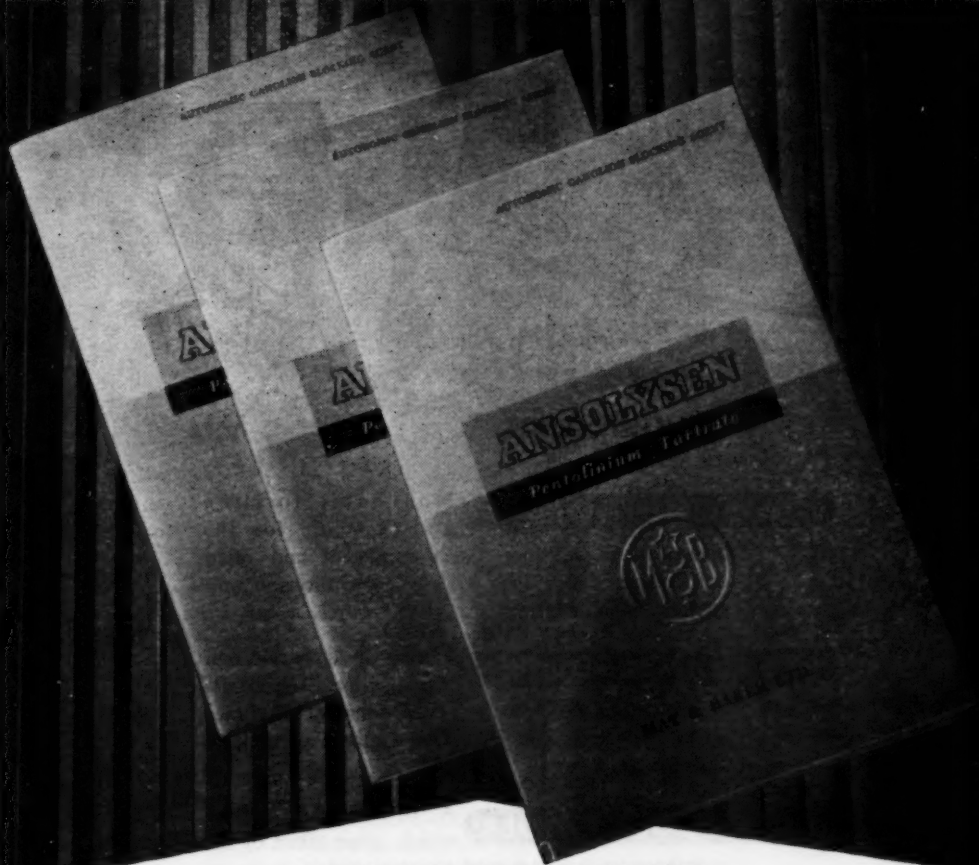
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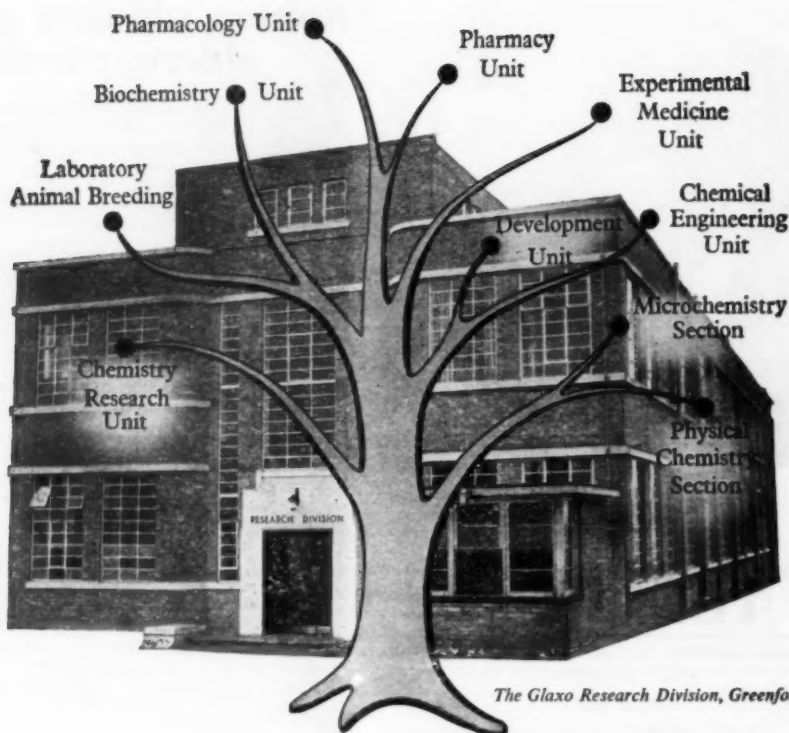
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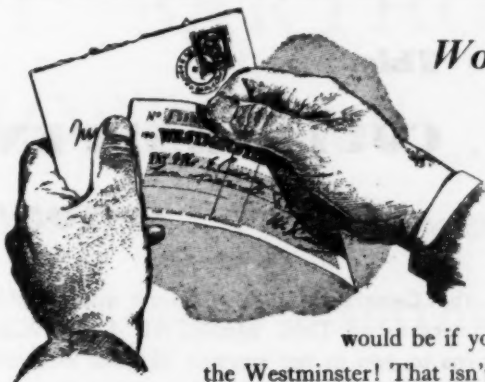
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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LXI

SEPTEMBER 1957

No. 9

EDITORIAL

*You write with ease, to show your breeding,
But easy writing's vile hard reading.*

Clio's Protest in Moore's Life of Sheridan.

SUCH AN OUTCRY made as latterly as 1825 epitomises only too well the dissatisfaction on the part of readers of most forms of writing of a contemporaneous nature. It is not our avowed aim in these lines to enunciate all the possible causes for the decline of the art of literal expression; the task is one of such gargantuan proportions that even the combined talents and knowledge of the better qualified could provide at best only a barely plausible explanation. That many factors must play a part is evident. The price paid for our 'highly modern and civilised' existence with its push-buttons, 'gadgets', 21-inch television screens and what-have-you-Scope, is unduly high. The art of reading and writing have been pushed further into abeyance. In *The Bishop Orders His Tomb*, Browning stated that 'the rough and ready man that write apace, read somewhat seldomer, think perhaps even less'—one wonders whether he could have foretold that these words of wisdom passed on his fellow men would one day assume such formidable dimensions of reality.

To be able to write with ease in the times of Thomas Moore was to be in keeping with a person's station or breeding. The illiterate masses had no form of compulsory education for their edification. To be able to write at all in present times is unfortunately not quite always in keeping with a person's station or breeding. This, in spite of compulsory education and state grants, would seem a consequence devoid of any logical sense. Apart from some of the reasons given before,

what are other causes for this state of insufficiency?

Critics who fancy themselves as purists expostulate upon the slightest pretext at the use of certain words alien to them but which convey more than adequately apparent and purposeful meaning. Styles of writing are also prone to onslaught. Such a bugbear as fear of criticism of context and style from quarters professing to unqualified learnedness is unfortunate, particularly when the criticism is unwarranted or when the budding writer has not the self-respect to defend himself. The essence of Clio's protest in Thomas Moore's *Life of Sheridan* was that easy writing provided 'vile hard reading.' We would point out that hard writing provides even more vile and difficult reading. 'Style is the man himself' (de Buffon) and 'Style is the dress of thought, a modest dress; neat, but not gaudy, will true critics please' (Samuel Wesley)—two testimonials to the futility of argument over correctness of style in writing. Each man is entitled to his own favourite coat and his favourite louse. One should heed Coleridge's words—'Until you understand a writer's ignorance, presume yourself ignorant of his understanding.'

Practice should make for perfection, but the import of the axiom is allowed to slip too often because of lethargy or because of a sense of defeatism illustrated best by Dogberry's averment to Seacoal in *Much Ado About Nothing*—'. . . to be a well-favoured man is the gift of fortune; but to write and read comes by nature.' Nothing can be further from the truth.

The rewards harvested from writing are

rich and varied. Recognition, fame and even lucre form but a few examples. Having one's writings clasped to the bosom by posterity must be the acme of one's efforts. One such person who succeeded in achieving this was Oliver Goldsmith on whose tombstone was

engraved the touching epitaph — '*To Oliver Goldsmith, A Poet, Naturalist, and Historian, who left scarcely any style of writing untouched, and touched nothing that he did not adorn.*' Incentive for future Goldsmiths from Bart's ?

* * *

A Step Forward

After a therapeutic trial had been carried out on the Ground Floor recently with gratifying results, the builders and in particular, the plumbers, have been allowed to invade the dignified atmosphere of the Surgical Unit to carry out extensive alterations to the sterilising and washing arrangements. Instead of the former arrangement by which access to the sluice room could be gained through the sterilising room, the new order is for these two rooms to be interchanged so that the sluice is now next to the ward and the sterilising room made into a separate and non-septic entity. The swinging doors opening into the wards have been replaced by those of a sliding variety to lessen the occupational hazards which constantly threatened the nursing staff. As a final gesture of deference to the maxim 'cleanliness comes next to godliness,' an extra bath has been installed for the use of patients.

Whereas there is every confidence that these changes comprise a step forward in the right direction leading to an increase in efficiency in the business of coping with the unromantic but highly necessary chores of the wards, it is to be hoped that the installation of an extra bath will have no adverse effects on the potency of the Unit as a driving force in surgical progress. The fall of the Roman Empire was ascribed by Gibbon to the predilection of its young men to hot baths.

* * *

A New Haemoglobin

Dr. Herman Lehmann, working in collaboration with Dr. Ager of St. Thomas's Hospital, has recently isolated and described a new haemoglobin to add to the already formidable list of types of haemoglobin known to be in existence. It is now 90 years

since Körber first described the differences between foetal and adult haemoglobin, thereby starting the search for other types. With the development of more modern techniques, the search has become increasingly more fruitful. Before this latest discovery of Dr. Lehmann's, 11 types had already been isolated.

By its electrophoretic and chromatographic properties, the newest haemoglobin was identified in the blood of a Punjabi Indian; it has been named, whimsically perhaps, Haemoglobin L, the other types known before being A, C, D, E, F, G, H, I, J, K, and S.

As the range of abnormal haemoglobins is becoming so vast, one feels that in order to have a full grasp of the complexities involved in the subject, one would have to have not so much the mental acuity of a trained person as the intellectual power of an intelligent 'layman.'

* * *

A new addition

Prof. R. L. Kahn, who first described the well-known flocculation test used in the diagnosis of syphilis, paid the hospital a visit during August—this being the second in three years. With a truly scientific turn of mind Prof. Kahn explored the pathology department, the canteen, and the library.

Whilst in the library Prof. Kahn offered Mr. Thornton a first edition of his book *Serum diagnosis of syphilis by precipitation methods* which was published in 1925. Mr. Thornton accepted this generous offer and reciprocated the gesture by presenting Prof. Kahn with a book on John Abernethy and one on Bart's. It is hoped that these two volumes will encourage our distinguished visitor to make Bart's a regular port of call when in London and further to convince him that his book will be a valuable acquisition by this hospital—the traditional home of medical erudition.

University of Cambridge

Lord Adrian, Master of Trinity College, has been elected Vice-Chancellor for the academical year 1957-58.

University of Edinburgh

Dr. R. H. A. Swain, Senior Lecturer in the department of Bacteriology, has been appointed reader in Virology.

University of London

M.S.—J. C. S. Leverton, M. Caine.

M.D.—A. E. Dormer.

Diploma in Public Health—P. G. Haigh.

Diploma in Bacteriology—S. P. Lapage.

The title of Reader in Histochemistry has been awarded to Dr. A. G. E. Pearse in respect of his post at the Postgraduate Medical School of London.

University of Toronto

Diploma in Public Health—G. E. Stoker.

British Medical Association

Sir Henry Hallett Dale has been awarded the Gold Medal of the British Medical Association in recognition of his distinguished services in the fields of physiology and pharmacology.

Canadian Life Insurance Fellowships

Dr. J. B. Dossetor has been awarded a Fellowship for research on factors influencing the rate of electrolyte excretion in health and disease.

Prizes and Scholarships

Treasurer's Prize (Practical Anatomy) Awarded to M. M. Orr and A. L. Russell.

Wix Prize (General Learning) Awarded to M. J. Pemberton.

Junior Scholarships (Anatomy and Physiology) First Scholarship awarded to A. B. Shaw; Second Scholarship awarded to A. L. Russell.

NOTICES

Decennial Club

The 10th Decennial Club Dinner will be held at the Bath Club on the 23rd October at 7 for 7.30 p.m. Members of the 8th and 9th Clubs will be welcome. Will those members desirous of attending kindly contact Miss Dixon, Secretary to Mr. S. L. Higgs, at 17, Wimpole Street, W.1.

Wessex Rahere Club

The Autumn Dinner of the above Club will take place at the Lansdown Grove Hotel, Lansdown, Bath, on Saturday, 26th October, 1957.

It is hoped that Dr. R. Ballantine will be present as Guest of Honour.

Membership of the Club is open to all Bart's Graduates practising in the West Country.

Further details will be circulated to members and to any other Bart's Graduates who are interested and who will get in touch with the Hon. Secretary, Mr. A. Daunt Bateman, at 11, The Circus, Bath, Somerset.

The Journal

Mr. M. J. L. Patterson has been elected to the post of Assistant Editor.

The post of Assistant Manager will soon be vacant. Applications for the post should be addressed to the Editor by the 30th of September.

Contributors are reminded that the JOURNAL goes to Press on the 1st of the month preceding that of publication. Articles, sports reports and notices *must* reach the JOURNAL Desk on or before the 1st of the month in order to be included in the ensuing number. Contributors are urged to write legibly if they cannot type, and to leave wide spaces between lines, using only one side of each sheet of paper.

ANNOUNCEMENTS

Engagements

SKEGGS—HUGHES. The engagement is announced between David Bartholomew Lyndon Skeggs and Anita (Anne) Hughes.

TAMLYN—VAUGHAN PHILLIPS. The engagement is announced between Geoffrey William Tamlyn and Elizabeth Vaughan Phillips.

Births

ARDEN.—On July 15, to Ann, wife of Surgeon Commander Leonard Arden, R.N., a daughter.

DAVY.—On July 11, to Jill, wife of Dr. Peter Humphrey Davy, a sister for Christopher and Julia.

DROWN.—On July 5, to Freda, wife of Dr. G. K. Drown, twin brothers for Rosemary.

MACONOCHIE.—On June 30, to Elizabeth, wife of Dr. A. D. A. Maconochie, a daughter, Frances Anne.

ROBINSON.—On June 25, to Barbara, wife of Dr. Keith Wallace Robinson, a daughter, Claire Elizabeth.

SAMRAH.—On June 15, to Margaret Josephine, wife of Dr. Maurice Ed. Samrah, a second daughter, Kären Gabriella Lorraine.

WINSTONE.—On July 22, to Anne, wife of Dr. Norman Winstone, a son, Mark Edward.

Deaths

COZENS.—On August 17, Dr. F. C. Cozens, aged 65, at his home, 8, The Downs, Herne Bay, Kent. Qualified 1921.

HUGGINS.—On July 25, Sydney Penrose Huggins, aged 83. Qualified 1896.

SCAWIN.—On June 12, Harold Willis Scawin. Qualified 1909.

UPSHON.—On July 24, Lt.-Col. Hector Marshall Upshon, R.A.M.C. (Ret'd.). Qualified 1940.

WOODFORDE.—On July 2, Robert Edmund Heighes Woodforde. Qualified 1898.

OBITUARIES

E. M. Elmhirst, T.D., M.S., F.R.C.S. (1915-1957)

Edward Mars Elmhirst-Baxter was born on December 18, 1915, and was educated at Wellington College. He qualified here in 1939, and in the previous year won the Wix Prize Essay on David Pitcairn (*St. Bart's Hosp. Rep.*, 72, 1939, pp. 278-302). He later assumed the name Elmhirst. During the war he served in Burma and the Near East, and in 1951 was awarded the Territorial Efficiency Decoration.

After holding appointments at this Hospital, the British Postgraduate Medical School, the Central Middlesex and Hampstead General, Elmhirst went to the East Suffolk and Ipswich Hospital as senior surgical registrar in 1952, and three years later became honorary secretary of the East Anglian Regional Registrars Group. Having qualified F.R.C.S. in 1948, Elmhirst took the London M.S. last year, but was unable to attain consultant status. He left England to become a consultant surgeon in Bermuda, where he died on August 1, 1957.

Elmhirst was keenly interested in history,

heraldry and painting, in addition to being a confident surgeon. His early death is deeply regretted by all with whom he came into contact, and our sympathy is extended to his widow and five children.

Robert Henry Dale

The sudden death of Robert Henry Dale, who went to Saskatoon, Canada, in 1953, must have come as a sad blow to his colleagues, friends and patients. At the age of 47, Robin Dale had all the attributes of a man for whom the years ahead held great promise.

As the prominent son of a famous father, he had a heritage of critical scientific thinking and self critical humility. To this was added the education background of Cambridge and Bart's. His postgraduate medical career in general practice, general surgery, orthopaedic and traumatic surgery and finally plastic surgery provided this extremely competent doctor with the kind of background difficult to achieve in these days of ever lengthening postgraduate training and ever narrowing

specialisation. At the time of his death, he was engaged in the writing of a textbook of surgery of the hand.

He was at home in any kind of company and always showed that happy knack of not talking medicine in the company of non-medical friends or colleagues. His meticulous care and skill were amply known and demonstrated in his own specialty but he managed to apply the same attention to detail and the same infectious enthusiasm to less academic pursuits. His buoyant good

humour and endearingly rugged individualism showed just as well in a piece of nonsensical verse or in a remarkable home-made musical instrument as in his wonderful reconstructive work with burned and disfigured human tissues.

In the four short years in Canada, Robin Dale proved himself to be not only a surgeon of outstanding skill and dedication but also a warm hearted and lovable man of real stature.

B. J. R.

LETTERS TO THE EDITOR

A CASE OF MISTAKEN

IDENTITY

Sir,—Much confusion has been caused by the fact that my name is so similar to that of Dr. Geoffrey (H) Bourne of the London Hospital. I would be grateful if you would publish this letter. I have nothing to do with ageing, except in so far as my own metabolic processes are concerned, nor have I any interest in hair growing, beards, or other such appurtenances of senility.

Yours sincerely,
GEOFFREY BOURNE.

20, Harley House,
Marylebone Road,
N.W.1.

PALMER'S JOCKEY

Sir,—Recently, while perusing through a book* by Robert Gibbings, I came upon a passage which might be of interest to those of your readers who followed the story of William Palmer in September of last year. The author is describing a journey made down the Thames in a punt in the summer of 1939; one could not do better than quote his own words:

"But next day I had time to stop and make a little drawing of the church at Appleford, and, when that was finished, there was a dryness in my throat which sent me in search of the village pump. In the course of my exploration I found 'The Black Horse,' and there I learned of Mr. John Faulkner, a jockey, who but lately had taken 'his last hurdle.' He had lived to the age of a hundred and four, had ridden his first winner at the age of eight, and was still in the

saddle when over seventy. He married twice, and had thirty-two children, all of whom are still living, save one who died from an accident. The eldest is now eighty-five and the youngest thirty-nine.

"'An' didn' 'e 'ave a wunnerful funeral. Four black 'orses drew the wagon to the church.'

"'Wasn't one of them 'orses painted, Bill?

"'Well, 'e warn't the same colour a week afore.'

"Everybody knew 'Old John.' He had his own corner in 'The Black Horse,' and nobody ever sat in it after he had entered the bar."

... "He broke his thigh at the age of ninety, something to do with a mule. 'You'll never walk again,' said the doctor. 'We'll see,' said Faulkner. Seven weeks after, he walked to Abingdon and back, a distance of eight miles.

"He rode many races for an owner called Palmer, who afterwards achieved an unenviable notoriety.

"'Ever 'eard of Palmer, sir? 'Ung for murderin' 'is wives. One arter another 'e married an' then 'e poisoned 'em. Kep' a lot o' 'orses.'

"Faulkner had horses of his own too—'Biscuit,' which he is said to have ridden second in the Grand National, and 'Rip Van Winkle,' which, though bought for five shillings, won several small races.

"His last words were to ask for a glass of beer. When he was unable to drink it his family knew that 'the old man was finished'."

This charming story, though largely irrelevant, does at least illustrate two things. First, that in spite of his unorthodox activities Palmer was a much maligned man, having in fact murdered only one wife; and secondly, that it was possible for those who came into contact with him, provided they were hardy enough, to survive quite a reasonable number of years.

Yours sincerely,
JOHN PRICE.

Abernethian Room.

*Sweet Thames Run Softly by Robert Gibbings.
J. M. Dent & Sons Ltd., 1940.

EPONYMS AND BART'S MEN

by JOHN R. BROWN AND JOHN L. THORNTON

AT ONE TIME it was common practice to associate the names of their discoverers with the muscles, nerves, tests, signs, diseases, operations *etc.* that they had initially described, and medical nomenclature is rich in this type of terminology. However, the revision of anatomical nomenclature, for example, has resulted in the disappearance of many of these eponyms, which is to be deplored. But it is apparent that first descriptions were sometimes misapplied, that occasionally discoveries were made simultaneously and independently, and that while some diseases *etc.* are known by joint eponyms, others are known under several different names.

This article is an attempt to list Bart's men (a term interpreted in the widest sense), whose names have been associated with medical terminology. Material has been gathered from E. C. Kelly's *Encyclopedia of medical sources*, 1948, Jessie Dobson's *Anatomical eponyms*, 1946, and elsewhere, but as far as possible all the material has been checked, and in certain cases corrected.

Details here presented include full names; dates of birth and death where applicable; nature of association with Bart's; and details of eponymous association. Only the earliest reference to the writer's description is included in most cases, but additional information can be gleaned from the above books by Kelly and Dobson, or from Garrison and Morton's *Medical bibliography*, 2nd edition, 1954. In addition, one reference is given to a further source of biographical information.

Dates of appointments held in the Hospital are not included, since these are generally the last held, and thus the dates may prove misleading. For example, a person may have been Assistant Surgeon for twenty years but full Surgeon for only two. Certain of our entries have, of course, served in several capacities on the Staff, after first qualifying here as students.

We cannot expect to have included every eponym associated with Bart's men, but hope that we have resurrected some that are not commonly recognised.

ABERNETHY, John. (1764-1831). Surgeon.

Fascia—fascia covering the external iliac artery.

Lectures on anatomy, surgery and pathology, 1828. (Described in connection with ligation of external iliac artery.)

Operation—for ligation of external iliac artery. Case of femoral aneurism, reaching as high as Poupart's ligament, cured by tying the external iliac artery. *Edinb. med. surg. J.*, 3, 1807, pp. 46-57. (First performed by him in 1796.)

Sarcoma—fatty tumour mainly found on trunk.

Surgical observations, containing a classification of tumours, [etc.], 1804, pp. 26-33.

Thornton, John L. *John Abernethy, a biography*, 1953.

ADDISON, Christopher, Viscount Addison of Stallingborough. (1869-1952). Lecturer on Anatomy.

Point—midpigastirc.

Transpyloric line or plane.

On the topographical anatomy of abdominal viscera in man, especially the gastrointestinal canal. *J. Anat. Physiol.*, 33, 1899, pp. 565-586.

Obituary. *St. Bart's Hosp. J.*, 56, 1952, pp. 320-22.

ANDREWES, Christopher Howard. Former Student.

Test—for uraemia.

An unexplained diazo-colour-reaction in uraemic sera. *Lancet*, 1924, I, pp. 590-91.

BAKER, William Marrant. (1839-1896). Surgeon.

Cyst—of the knee joint.

On the formation of synovial cysts in the leg in connection with disease of the knee-joint. *St. Bart's Hosp. Rep.*, 13, 1877, pp. 245-61; see also *Ibid.*, 21, 1885, pp. 177-90.

Tubes—tracheotomy. On the use of flexible tracheotomy tubes. *Med.-chir. Trans.*, 60, 1877, pp. 71-84.

First described, Erythema serpens. *St. Bart's Hosp. Rep.*, 9, 1873, pp. 198-211.

Obituary. *St. Bart's Hosp. Rep.*, 32, 1896, pp. xxxix-xlix.

BERRY, Sir James. (1860-1946). Surgical Registrar.

Ligament—lateral ligaments of thyroid. Suspensory ligaments of the thyroid gland. *J. Anat. Physiol.*, 22, 1888, Proc. Anat. Soc., July, 1887, pp. iv-v.

Lives of the Fellows of the Royal College of Surgeons of England, 1930-1951, 1953, pp. 73-6.

BRODIE, Sir Benjamin Collins. (1783-1862). Student.
Abscess—chronic inflammation of head of bone. On trephining the tibia. *Lond. med. Gaz.*, 2, 1828, pp. 70-74; see also *Med.-chir. Trans.*, 17, 1832, pp. 239-49.

Bursa—semimembranosus-gastrocnemius.

Pathological and surgical observations on the diseases of joints, 5th edition, 1850, p. 393.

Disease, 1—chronic synovitis with pulpy degeneration of affected parts. (Also known as Brodie's knee or joint.) Pathological researches respecting the diseases of the joints. *Med.-chir. Trans.*, 4, 1813, pp. 207-77; see also *Ibid.*, 5, 1814, pp. 239-54.

Disease, 2—hysterical pseudo-fracture of spine.

Pathological and surgical observations on diseases of the joints, 1818, p. 281.

Operation—for ulcer or fissure of anus.

Pile—sentinel pile.

Lectures on diseases of the rectum. Lecture III. Preternatural contraction of the sphincter ani. *Lond. med. Gaz.*, 16, 1835, pp. 26-31.

Tumour—serocystic tumours of breast. Lectures on sero-cystic tumors of the breast. *Lond. med. Gaz.*, 25, 1840, pp. 808-14.

Holmes, Timothy. *Sir Benjamin Collins Brodie*, 1898.

BUTLIN, Sir Henry Trentham. (1845-1912.) Surgeon.

Operation—excision of tongue.

A lecture on removal of the contents of the anterior triangle of the neck in cases of malignant diseases of the tongue. *Brit. med. J.*, 1905, I, pp. 285-89.

Obituary. *St. Bart's Hosp. Rep.*, 42, 1912, pp. 1-8; portrait.

CABOT, Hugh. (1872-1945). Honorary Perpetual Student, 1926.

Operation—for treatment of hypospadias. (With W. Walters and V. S. Counsellor.) Principles of treatment of hypospadias in theory and practice. *New Engl. J. Med.*, 214, 1936, pp. 871-6.

Operation—for undescended testis. The management of the incompletely descended testis. *South. Surgeon*, 4, 1935, pp. 331-44.

Technique—of nephropexy
Modern Urology, Vol. 2, 1936, pp. 480-84.

Obituary. *Lancet*, 1945, II, p. 322.

CAMMIDGE, Percy John. Former Student.

Reaction or Test—for diseases of the pancreas. The Arris and Gale Lecture on the chemistry of the urine in diseases of the pancreas. *Lancet*, 1904, I, pp. 782-7.

CRIPPS, William Harrison. (1850-1923). Surgeon.

Operation—colotomy in iliac region.
Cancer of the rectum: its pathology, diagnosis and treatment, 1880, pp. 135-42.

Obituary. *St. Bart's Hosp. Rep.*, 57i, 1924, pp. 1-4, portrait.

CUSHING, Harvey Williams. (1869-1939). Honorary Perpetual Student, 1922.

Haemangioblastoma.

(With P. Bailey.) *Tumors arising from the blood vessels of the brain. Angiomatous malformations and hemangioblastomas*, Springfield, Ill., 1928.

Operation—decompression over cerebellum.

The establishment of cerebral hernia as a decompressive measure for inaccessible brain tumors; with the description of intermuscular methods of making the bone defect in temporal and occipital regions. *Surg. Gynec. Obstet.*, 1, 1905, pp. 297-314.

Operation—exposure of gasserian ganglion and three divisions of fifth nerve by direct route.

A method of direct extirpation of the gasserian ganglion for trigeminal neuralgia. By a route through the temporal fossa and beneath the middle meningeal artery. *J. Amer. med. Assoc.*, 34, 1900, pp. 1035-41.

The major trigeminal neuralgias and their surgical treatment based on experience with 332 gasserian operations. *Amer. J. med. Sci.*, 160, 1920, pp. 157-184.

Operation—for hydrocephalus.

The special field of neurological surgery. *Bull. Johns Hopk. Hosp.*, 16, 1905, pp. 77-87.

Operation—for intracranial haemorrhage.

Concerning surgical intervention for the intracranial hemorrhage of the new born. *Amer. J. med. Sci.*, 130, 1905, pp. 563-581.

Operation—on pituitary.

The pituitary body and its disorders, Philadelphia, 1912.

Law—increase of intracranial tension causes increase of blood pressure to point slightly above pressure exerted against medulla. Concerning a definite regulatory mechanism of the vasomotor centre which controls blood pressure during cerebral compression. *Johns Hopk. Hosp. Bull.*, 12, 1901, pp. 290-92.

Syndrome—angle tumours.

Tumors of the nervus acusticus and the syndrome of the cerebello-pontile angle, Philadelphia, 1917.

Syndrome—of pituitary basophilism.

The basophil adenoma of the pituitary body and their clinical manifestations (Basal basophilism). *Johns Hopk. Hosp. Bull.*, 50, 1932, pp. 137-195.

Technique—On the avoidance of shock in major amputations by cocainization of large nerve-trunks preliminary to their division: with observations on blood pressure changes in surgical cases. *Ann. Surg.*, 36, 1902, pp. 321-345.

Fulton, John F. *Harvey Cushing: a biography*, Oxford, 1946.

DUNCAN, James Matthews. (1826-1890). Physician Accoucheur.

Folds—peritoneal folds of uterus.

On the displacements of the uterus. *Edinb. med. surg. J.*, 81, 1854, pp. 321-48. (Published in book form in the same year.)

Obituary. *St. Bart's Hosp. Rep.*, 26, 1890, p. xxxiii-xlvi.

FARRE, Arthur. (1810-1887). Lecturer on Comparative Anatomy, and on Forensic Medicine. *Line or White Line*—line of attachment of peritoneum of mesovarium to substance of ovary.

Uterus and its appendages. In: Todd, Robert. *Cyclopaedia of anatomy and physiology*, Supplementary vol. 5, 1859, pp. 545-725.

Obituary. *Brit. med. J.*, 1887, II, pp. 1407-8.

- FISHER, Alfred George Timbrell. Former student.
Operation—removal of meniscus.
Internal derangements of the knee-joint, 1924, p. 61; 2nd ed., 1933, p. 75.
- FLETCHER, Sir Walter Morley. (1873-1933). Student.
Test—for lactic acid.
(With Sir Frederick Gowland Hopkins.) *J. Physiol.*, 35, 1907, pp. 247-309.
Obituary. *St. Bart's Hosp. J.*, 40, 1932-3, pp. 179-80.
- GARROD, Sir Archibald Edward. (1858-1936). Physician.
Test—for alkaptonuria.
Alkaptonuria: a simple test for the extraction of homogentisic acid from the urine. *J. Physiol.*, 23, 1898-9, pp. 521-4.
Obituary. *St. Bart's Hosp. Rep.*, 69, 1936, pp. 12-26; portrait.
- GASK, George Ernest. (1875-1951). Professor of Surgery.
Operation—cervicothoracic ganglionectomy.
Technique—of periarterial sympathectomy.
(With Sir James Paterson Ross.) *The surgery of the sympathetic nervous system*, 2nd ed., 1937, pp. 55, 65.
Obituary. *St. Bart's Hosp. J.*, 55, 1951, pp. 86-88.
- GEE, Samuel Jones. (1839-1911). Physician.
Disease—non-tropical sprue, idiopathic steatorrhoea; also known as Gee-Thaysen and Gee-Herter disease.
On the coeliac affection. *St. Bart's Hosp. Rep.*, 24, 1888, pp. 17-23.
Gee also gave his name to Gee's Linctus, but we cannot find that he ever mentioned it in print, despite the reference given in Kelly. Garrod, Oliver. *The life of Samuel Jones Gee, M.D., F.R.C.P. (1839-1911)*, [etc.] *St. Bart's Hosp. Rep.*, 71, 1938, pp. 229-279.
- GILLIES, Sir Harold Delf. Consulting Plastic Surgeon.
Method. Reconstruction of the external ear with special reference to the use of maternal ear cartilage as the supporting structure. *Rev. de Chir. structur.*, 7, 1937, pp. 169-79.
Operation. (With W. K. Fry.) A new principle in the surgical treatment of "congenital cleft palate," and its mechanical counterpart. *Brit. med. J.*, 1921, I, pp. 335-8.
Operation. (With T. P. Kilner and D. Stone.) Fractures of the malarzygomatic compound: with a description of a new x-ray position. *Brit. J. Surg.*, 41, 1927-8, pp. 651-6.
Tubed Pedicle Flaps. The design of direct pedicle flaps. *Brit. med. J.*, 1932, II, pp. 1008.
- GORDON, Mervyn Henry. (1872-1953). Bacteriologist.
Test—for lymphadenoma.
In. *Rose research on lymphadenoma. Contributors*, Sir Thomas Holder, [et al.], Bristol, London, 1932, pp. 7-76.
Remarks on Hodgkin's disease. A pathogenic agent in the glands, and its application in diagnosis. *Brit. med. J.*, 1933, I, pp. 641-44.
Trypagar. (With T. G. M. Hine.) An experimental study of the cultural requirements of the meningococcus. Together with a description of an easily prepared medium for that micro-organism. *Brit. med. J.*, 1916, II, pp. 678-84.
- Obituary. *St. Bart's Hosp. J.*, 57, 1953, pp. 231-2; portrait.
- GRAHAM, Ewatts Ambrose. (1883-1957.) Honorary Perpetual Student, 1939.
Operation—Pneumectomy with the cautery: a safer substitute for the ordinary lobectomy in cases of chronic suppuration of the lung. *J. Amer. med. Ass.*, 81, 1923, pp. 1010-12.
Test—cholecystography. (With W. H. Cole.) Roentgenologic examination of the gallbladder: preliminary report of a new method utilizing the intravenous injection of tetrabromphenolphthalein. *J. Amer. med. Ass.*, 82, 1924, pp. 613-4.
(With others.) Visualization of the gallbladder by the sodium of salt of tetrabromphenolphthalein. *J. Amer. med. Ass.*, 82, 1924, pp. 1777-8.
Total pneumonectomy for carcinoma performed.
(With J. J. Singer.) Successful removal of an entire lung for carcinoma of the bronchus. *J. Amer. med. Ass.*, 101, 1933, pp. 1371-4.
Obituary. *Brit. med. J.*, 1957, I, pp. 648-9.
- HARMER, William Douglas. Consulting Surgeon for Diseases of the Throat.
Method—fenestration, of x-ray treatment.
The relative value of radiotherapy in the treatment of cancers of the upper air passages, [etc.], (1932).
- HARRISON, Geoffrey Arthur. Former Reader and Lecturer in Chemical Pathology.
Method. A modification of Berberio's test for human seminal stains. *Lancet*, 1932, II, pp. 940-1.
- HARTRIDGE, Hamilton. Former Professor of Physiology.
Method. A spectroscopic method of estimating carbon monoxide. *J. Physiol.*, 44, 1912, pp. 1-21.
Reversion Spectroscope. The coincidence method for the wave-length measurement of absorption bands. *Proc. roy. Soc.*, 102A, 1923, pp. 575-587.
- HOLDEN, Luther. (1813-1905). Surgeon.
Line—crease line of skin of groin in flexion of hip-joint. Medical and surgical landmarks. *St. Bart's Hosp. Rep.*, 6, 1870, p. 81; also in his *Landmarks, medical and surgical*, 1877, p. 43.
Obituary. *St. Bart's Hosp. Rep.*, 41, 1905, pp. xxxi-xxxviii; portrait.
- HUMPHRY, Sir George Murray. (1820-1896). Student.
Ligament—of knee.
On excision of the knee. *Med.-chir. Trans.*, 41, 1858, pp. 193-218.
The results of thirty-nine cases of excision of the knee. *Ibid.*, 52, 1869, pp. 12-25. See also *A treatise on the human skeleton, including the joints*, Cambridge, 1858, p. 546.
Operation. Excision of the condyle of the lower jaw. *Ass. med. J.*, 160, 1856, pp. 61-2.
Obituary. *St. Bart's Hosp. Rep.*, 32, 1896, pp. xxxi-xxxvii.
- HUTCHINSON, Sir Jonathan. (1828-1913). Student.
Disease—degeneration of choroid.
Illustrations of clinical surgery, Vol. 1, 1877, pp. 49-52.
Disease. Infective angioma of naevus-lupus.

- Arch. Surg.*, 3, 1892, pp. 166-8.
 Disease—recurrent summer eruption.
 A case of summer eruption with great severity for many years, but finally getting well (a form of Kaposi's disease). *Clin. Soc. Trans.*, 22, 1888, pp. 80-83.
 Melanotic whitlow—subungual melanoma.
 Melanotic disease of the great toe, following a whitlow of the nail. *Trans. path. Soc.*, 8, 1857, pp. 404-5; Melanosis often not black: melanotic whitlow. *Brit. med J.*, 1886, I, p. 491.
 Prurigo—of dentition.
 Summer prurigo, prurigo aestivalis, seu prurigo adolescentium, seu acne prurigo. *Med. Times Gaz.*, 1, 1878, pp. 161-3.
 Sign; Keratitis; Teeth; or Triad.
 Report on the effects of infantile syphilis in marring the development of the teeth. *Trans. path. Soc.*, 9, 1858, pp. 449-56.
 On the different forms of inflammation of the eye consequent on inherited syphilis. *Ophth. Hosp. Rep.*, 1, 1858, pp. 191-203, 226-44; Heredisyphilitic struma: and on teeth as a means of diagnosis. *Brit. med. J.*, 1861, I, pp. 515-7.
 Hutchinson, Herbert. *Jonathan Hutchinson: life and letters*, 1946.
- JACKSON, John Hughlings. (1835-1911). Student.
 Epilepsy. Unilateral epileptiform seizures, attended by temporary defect of sight. Short report. *Med. Times Gaz.*, 1, 1863, p. 588; A study of convulsions. *St. Andrews med. Grad. Ass. Trans.*, 1869, 3, 1870, pp. 162-204.
 Law—nerve functions latest to be developed are earliest to be destroyed.
 Rule—following epileptic attacks, simple nervous processes are more quickly recovered from than complex ones. Remarks on the relations of different divisions of the central nervous system to one another and to parts of the body. *Lancet*, 1898, I, pp. 79-87.
 Syndrome—unilateral palsy of motor tenth, eleventh and twelfth nerves.
 On a case of paralysis of the tongue from haemorrhage in the medulla oblongata. *Lancet*, 1872, II, pp. 770-3.
Munk's Roll, Vol. 4, 1826-1925, 1955, pp. 161-3.
- KANTHACK, Alfredo Antunes. (1863-1898). Lecturer on Pathology.
 Agar—serous exudate, for diagnosis of diphtheria. (With J. W. W. Stephens.) A new and easy method of preparing serum agar: an aid to the diagnosis of diphtheria. *Lancet*, 1896, I, pp. 835; in German in *Zbl. Bakt.*, 19, 1896, pp. 609-10.
 Obituary. *St. Bart's Hosp. Rep.*, 35, 1899, pp. 5-11; portrait.
- KEYNES, Sir Geoffrey Langdon. Consulting Surgeon.
 Needle.
 Transfusion bottle. Blood transfusion: its theory and practice. *Lancet*, 1920, I, pp. 1216-8; *Blood transfusion*, (1922), p. 126 (needle); p. 127 (transfusion bottle).
 Operation. The modern treatment of hernia. *Brit. med. J.*, 1927, I, pp. 173-9, 595-6.
- KLEIN, Edward Emanuel. (1844-1925). Lecturer on Histology, etc.
 Muscle—marginal bundle of the lips.
Zur Kenntniss des Baues der Mundlippen, Vienna, 1869.
- Obituary. *St. Bart's Hosp. Rep.*, 58, 1925, pp. 1-7.
- LANGDON-BROWN, Sir Walter. (1870-1946). Physician.
 Scheme—of the autonomic system.
The sympathetic nervous system in disease, 1920.
 Obituary. *St. Bart's Hosp. J.*, 50, 1946-7, pp. 147-9.
- LATHAM, Peter Mere. (1789-1875). Physician.
 Circle—area on chest wall corresponding to area of pericardial dullness.
Lectures on subjects connected with clinical medicine, comprising diseases of the heart, Vol. 1, 1845, pp. 126 et seq.
 Obituary. *St. Bart's Hosp. Rep.*, 11, 1875, pp. xxv-xxxvi.
- LEVITT, Walter Montague. Consulting Medical Officer to Therapeutic X-Rays.
 Method. Regional x-ray baths in the treatment of lymphadenoma. *Brit. J. Radiol.*, N.S.11, 1938, pp. 183-8.
- LOCKWOOD, Charles Barrett. (1856-1914). Surgeon.
 Five tails—the attachments of the gubernaculum, and order of development for bringing testis down into scrotum. The development and transition of the testicles, normal and abnormal. *J. Anat. Physiol.*, 21, 1887, pp. 635-64; 22, 1888, pp. 38-77, 461-78, 505-41.
 Hiatus muscularis—of appendix.
 Notes on the lymphatics of the vermiform appendix. *J. Anat.*, 34, 1900, Proc. Anat. Soc., Nov., 1899, pp. ix-xiii.
 Operation. The radical cure of femoral and inguinal hernia. *Lancet*, 1893, II, pp. 1297-1302.
 Suspensory Ligament—of globe of eye.
 The anatomy of the muscles, ligaments and fasciae of the orbit, including an account of the capsule of Tenon, the check ligaments of the recti and the suspensory ligaments of the eye. *J. Anat. Physiol.*, 20, 1886 [October, 1885], pp. 1-25.
 Jewsbury, Eric C. O. *The life and works of Charles Barrett Lockwood (1856-1914)*, [etc.], 1936.
- MCINDOE, Sir Archibald Hector. Surgeon, Department of Plastic Surgery.
 Criteria—for delayed rupture after splenic injury. Delayed haemorrhage following traumatic rupture of the spleen. *Brit. J. Surg.*, 20, 1932-3, pp. 249-268.
 Operation. The treatment of hypospadias. *Amer. J. Surg.*, 38, 1937, pp. 176-185.
 Operation. (With J. B. Banister.) An operation for the cure of congenital absence of the vagina. *J. Obstet. Gynaec. Brit. Emp.*, 45, 1938, pp. 490-94.
- MAINGOT, Rodney Honor. Former Chief Assistant, Surgical Unit.
 Technique. Resection of head of pancreas and duodenum for carcinoma. *Lancet*, 1941, II, pp. 798-800.
- MOYNIHAN, Berkeley George Andrew, Lord Moynihan of Leeds. (1866-1936). Honorary Perpetual Student, 1927.
 Hunger pain—indicative of duodenal ulcer.
 Duodenal ulcer, Philadelphia, 1910, p. 19.
 Operations I & II—modifications of Billroth II gastric resection.

- Abdominal operations*, Philadelphia, 1905, pp. 195-215.
Scheme—of intestinal localization. Ibid., pp. 251-8.
Test—for hour-glass stomach. Remarks on hour-glass stomach. Brit. med. J., 1904, I, pp. 413-6.
 Obituary. *St. Bart's Hosp. J.*, 44, 1936-7, pp. 25-6.
- OWEN, Sir Richard. (1804-1892). Lecturer on Comparative Anatomy.
Lines—striations in the dentine of teeth. On the structure of teeth, and the resemblance of ivory to bone, as illustrated by microscopical examination of the teeth of man and of various existing and extinct animals. Rep. Brit. Assoc. Adv. Sci., 1838, pp. 135-150.
Theory—of origin of vertebrate skull. On the archetype and homologies of the vertebrate skeleton, 1848.
 Owen, Richard. *The life of Richard Owen*, [etc.], 2 vols., 1894.
- PAGET, Sir James. (1814-1899). Surgeon.
Abscess. On residual abscesses. St. Bart's Hosp. Rep., 5, 1869, pp. 73-9.
Disease—of bone (osteitis deformans). On a form of chronic inflammation of bones—osteitis deformans. Med. chir. Trans., 60, 1877, pp. 37-64; Additional cases of osteitis deformans. *Ibid.*, 65, 1882, pp. 225-36.
Disease—of nipple. On disease of the mammary areola preceding cancer of the mammary gland. St. Bart's Hosp. Rep., 10, 1874, pp. 87-89.
Tumour. Recurring fibroid and fibro-nucleated tumours. Lectures on surgical pathology, Vol. 2, 1853, pp. 155-70.
 Paget, Stephen, Ed. *Memoirs and letters of Sir James Paget*, 1901.
- POTT, Percivall. (1714-1788). Surgeon.
Curvature, Disease, Paralysis or Paraplegia. Remarks on that kind of palsy of the lower limbs which is frequently found to accompany a curvature of the spine and is supposed to be caused by it, together with its method of cure, 1779; Further remarks on the useless state of the lower limbs, in consequence of a curvature of the spine; being a supplement to a former treatise on that subject, 1782.
Fracture—of ankle. Some few general remarks on fractures and dislocations, 1769, pp. 57-64.
Gangrene—senile. Chirurgical observations relative to the cataract, the polypus of the nose, the cancer of the scrotum, the different kinds of ruptures, and the mortification of the toes and feet, 1755, pp. 187-208.
Puffy tumour—associated with osteomyelitis of skull. Observations on the nature and consequences of wounds and contusions of the head, fractures of the skull, concussions of the brain, &c., 1760, pp. 52-56.
 Lloyd, G. Marner. *The life and works of Percivall Pott*, 1714-1789. *St. Bart's Hosp. Rep.*, 66, 1933, pp. 291-336; portrait, etc.
- RIVIERE, Clive. (1872-1929). Student.
Sign—in pulmonary tuberculosis. The early diagnosis of tubercle, 3rd ed., 1921, pp. 34-6.
- Obituary. *St. Bart's Hosp. J.*, 36, 1928-9, pp. 98-9.
- STANLEY, Edward. (1793-1862). Surgeon.
Cervical ligaments—reflected capsular fibres on neck of femur. A manual of practical anatomy, 1818, p. 363; Some cases of injury of the hip joint. *Med. chir. Trans.*, 13, 1827, pp. 504-512.
 First described, A case of disease in the posterior columns of the spinal cord. *Med. chir. Trans.*, 23, 1839-40, pp. 80-84.
 Willett, Alfred. Edward Stanley, F.R.S., [etc.]. *St. Bart's Hosp. J.*, 1, 1893-4, pp. 146-9.
- TOOTH, Howard Henry. (1856-1925). Physician.
Disease or Type—Charcot-Marie-Tooth disease. The peroneal type of progressive muscular atrophy, 1886.
 Obituary. *St. Bart's Hosp. Rep.*, 58, 1925, pp. 9-15.
- TRACY, Samuel John. (1813-1901). Dentist.
Ether inhaler—Apparatus for respiration of ether vapour. Lond. med. Gaz., N.S.4, 1847, p. 167; A description of an apparatus for inhalation of ether vapour; with some remarks on its use, 1847.
 Thornton, John L. Samuel John Tracy (1813-1901). [etc.]. *Anaesthesia*, 7, 1952, pp. 72-6.
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Operation—for carcinoma of oesophagus. Recent advances in the treatment of carcinoma of the oesophagus from the surgical and radiological aspects. Proc. roy. Soc. Med., 27, 1934, pp. 355-65.
Sign. Local discolouration of the abdominal wall as a sign of acute pancreatitis. Brit. J. Surg., 7, 1919-20, pp. 394-5.
Technique—of immobilizing left lobe of liver. The Henry Jacob Bigelow Lecture. Some experiences in the surgery of the oesophagus. New Engl. J. Med., 205, 1931, pp. 657-74.
Lives of the Fellows of the Royal College of Surgeons of England 1930-1951, [etc.], 1953, pp. 785-90.
- TURNER, Sir William. (1832-1916). Student.
Membrane—subzonal membrane of amnion within the chorionic vesicle. On the maternal sinus vascular system of the human placenta. Proc. roy. Soc. Edin., 7, 1869-72, pp. 760-62; On the placentation of the sloths. *J. Anat.*, 7, 1873, pp. 302-3; 8, 1874, pp. 362-76. Also several other papers on the placenta in these two journals.
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A FORTNIGHT IN NORWAY

by E. L. KENNAWAY

THE SCANDINAVIAN countries have great advantages for the study of cancer as it occurs in man because:

- (a) they do not present any great complexity of race, religion, and industrial conditions;
- (b) their populations are comparatively small, that of Norway being 1/13 that of England and Wales (Sweden 7,250,000, Denmark 4,400,000, Finland 4,100,000, Norway 3,375,000, Iceland 160,000);
- (c) their standards of accuracy in science and medicine are as high as those of any countries in the world;
- (d) morbidity data are supplied by Cancer Registration which has been established in Denmark (1945), Norway (1952) and Finland (1953).

PATHOLOGY AND CANCER RESEARCH IN OSLO

These advantages are shown in the most complete study which has yet been made of any one form of cancer in one country, namely that of Professor Leiv Kreyberg on the "Occurrence and Aetiology of Lung Cancer in Norway in the Light of Patho-

logical Anatomy¹," which was the subject of a Special University Lecture at the London School of Hygiene and Tropical Medicine on 1st May, 1956. This is also the first study of cancer of the lung upon any such scale in which the various histological types included under that term are distinguished^{1, 2}.

Recently my wife and I spent two weeks in Norway, of which the first, in Oslo, where we were the guests of Professor Kreyberg's Institute, was occupied largely with matters relating to cancer, while the second, at Bulken, at the foot of the mountains of Western Norway, a delightful spot chosen for us by Professor Kreyberg, was a holiday.

Professor Leiv Kreyberg was appointed in 1935 Professor of General Pathology and Pathological Anatomy but the development of the department was prevented by the war and in 1952 the subject was divided between two chairs, of which he held that of General and Experimental Pathology, located on the 10th floor of the new main block of the Rikshospital, with animal rooms on the 11th floor, and a chair of Pathological Anatomy (Professor Olaf Torgersen) for which the accommodation is in another building.

Professor Kreyberg's Institute of General and Experimental Pathology carries out all the diagnostic work for the Rikshospital of 1,200 beds, which takes cases of all kinds except the neurological, which are the concern of a separate hospital. Autopsies are performed in the Department of Pathological Anatomy under the direction of Professor Olaf Torgersen. Professor Kreyberg keeps in close touch with the clinicians, and holds weekly conferences with the surgeons, and with the physicians, in which all the clinical, laboratory and radiological material relating to individual patients is discussed and for such occasions half-plate enlargements of photomicrographs are prepared. When examining a biopsy from an operation he can discuss the findings with the surgeon in the theatre by telephone.

The investigations on cancer of the lung are carried on quite independently of the duties of the Chair toward the Rikshospital and the University.

At the time of our visit Professor Kreyberg was much occupied with the examination for degrees in medicine; the candidate is examined orally, in the presence of all the examiners, and of the whole body of students who thus gain instruction from the discussion of the questions asked. This procedure is quite different from our written examinations and reminds one of the disputations of the mediaeval universities.

The Cancer Registry of Norway, directed by Dr. Einar Pedersen, began in 1952 and is housed temporarily in the Norsk Hydro's Institute for Cancer Research, opened in 1954. We had an interesting talk with the Director of the Institute, Dr. Reidar Eker, and obtained some literature describing the work in progress there. About 8,000 notifications, which are compulsory, are received yearly. The methods of indexing seemed to be extremely efficient. Considerable use is made of cards of different colours, which gave some of the drawers of the card index cabinets the aspect of graphs showing the correlation of various factors, sex, town and country, etc. Dr. Pedersen is about to publish an account of the work of the first five years. Some matters to which he is giving especial attention are (a) a decrease in cancer of the stomach, (b) an increase, greater in males than in females, in leukaemia, (c) a high incidence of cancer of the thyroid in northern Norway where the intake of iodine

would not be defective and may possibly be excessive.

Professor Torgersen, who takes in the Friday *Manchester Guardian*, has in hand some studies of cancer of the stomach namely:—

- (1) a social and economic study of its distribution in Oslo;
- (2) an experimental search for carcinogenic factors, using the stomach of the rat, which is subjected to various combinations and sequences of (a) Vitamin A deficiency, (b) trauma, (c) feeding with heated fats, (d) administration of oestrogens and androgens. The chances of success are of course small, which is all the more reason for making as many trials as possible; so far there have been two suggestive results. This seems to me to be exactly the type of experiment which is most needed in cancer research. He is investigating also the effect of Vitamin A deficiency upon the urinary tract, combined with ligation of a ureter and has had a neoplastic result in one case.

Professor Torgersen plans to freeze-dry 15 ml. of blood from a large number of persons and examine it say 10 years later, e.g. for muco-polysaccharides, or by electrophoresis of proteins, in the light of their history in the meantime. Annual radiography of the thorax is compulsory and the subjects, who are traceable, might provide material.

Professor Kreyberg very kindly arranged that I should give an address, with the help of 22 lantern slides, to some members of Den Norske Patalogforening in the lecture room of the fine building of the Oslo Medical Society. The talk, which was followed by a dinner and a party, dealt with things which we do not know about cancer, referring to various possible carcinogenic factors, town and country life, atmospheric pollution, cancer of the stomach and cervix, cholesterol, co-carcinogenesis, carcinoma-in-situ, and the distribution of cancer over various organs.

ATMOSPHERIC POLLUTION

During 1955 samples of suspended matter were collected in the ordinary way, by drawing a measured volume of air during 24 hours through filter paper, at the Rikshospital in Oslo, at Bergen, and at two small towns, Halden and Notodden (Campbell and Kreyberg³), and these were analysed at the Fuel Research Station, Greenwich, for total smoke

content, and in the Department of Pathology at this Hospital for 3:4 benzpyrene and other hydrocarbons by Dr. J. M. Campbell, and for arsenic by myself. The figures for Oslo are of the same order as those for Copenhagen (Campbell and Clemmesen⁴, Table I). The concentration of benzpyrene in the suspended matter is similar to that found in large English towns, while the amount per unit volume of air is, in summer, similar to that in a Welsh village (Llangefni, Stocks and Campbell⁵), and in the two small Norwegian towns is lower still. The concentration of benzpyrene shows the usual seasonal trends with a maximum in winter and a minimum in summer.

At Bergen, on the west coast, Norway's second largest city (population 112,000), the study of atmospheric pollution is facilitated by the funicular railway to Fløyen, 1,040 feet, from which one can see almost the whole place and a great area of sea, fiords, islands and mountains also. At the time of our visit, on a Sunday morning, there seemed to be no visible smoke at all except that produced by the steamer coming in from Newcastle.

In Norway, as in Iceland, most dwelling houses have a single chimney only in the middle of the roof, a contrast indeed to what one sees in the older parts of London, where two conjoined houses may have a dozen chimney-pots.

TABLE I. EXAMPLES OF ATMOSPHERIC POLLUTION.

	Smoke mg/100m ³	3:4 Benzpyrene μg/100m ³	Arsenic (As ₂ O ₃)
Sheffield—January 1950	—	7.8	7.0 - 9.4
February 1948	44 - 173	6 - 33	—
Salford—November to March	—	15 - 30	—
Leicester—Winter	30	—	—
Summer	13	—	—
Mean	21.5	—	—
Mean of (London, Becton	—	7.1	13.2
Year (Bristol	—	1.3	3.7
Llangefni, Anglesey—Winter	4.9	0.7	—
Oslo—whole year	1.3 - 5.7	2.5	1.9 - 3.1
Copenhagen—Winter	—	—	—
(Mean of four Stations)	4.9	1.5	1.8
Iceland:			
Reykjavik—whole year	0.9 - 1.5	0.23	nil - 0.7
Akureyri—Winter	0.8	—	nil - 1.7
Summer	0.5	0.05	—

It is always interesting to compare such laboratory findings with the impression that one gets on the spot, and in Copenhagen in 1955 we found, in a comparison of four different stations, that this correspondence was remarkably close (Kennaway⁶).

Norway's great industrial asset is electricity from water power which helps to eliminate the combustion of fuel for domestic and manufacturing purposes. From the balcony of Professor Kreyberg's department on the 10th floor one gets a fine view over Oslo (population 440,000). We saw only two smoky industrial chimneys, and a good deal of smoke from a cement works some way down the fiord, but all was of a very pale character. As at Helsinki, one of the chief sources of smoke is steamers in the harbour.

NANSEN AND "FARTHEST NORTH"

After my talk on Cancer to the Pathological Society I asked for permission to say a few words more, while admitting that nothing is more trying to an audience than a speaker who, having once stopped, begins again. However, I said that this was the first time that I had addressed a Norwegian audience, but I wanted to say something about the reverse process, namely the first time that I was one of an audience for a Norwegian. In 1897 Nansen came to lecture at my native city of Exeter on the "Fram" expedition. He was then at the height of his immense physical and mental powers and had accomplished two great feats of exploration, the earlier one being the first crossing of

Greenland, a hazardous adventure indeed for no one knew what he would encounter. In the 60 years since that day I have not heard a more fascinating lecture, nor seen a finer man.

Nansen's book "Farthest North", in two large volumes, is now hard to obtain, and is much too long; an abbreviated edition would be very welcome. The second volume tells of the almost incredible feat of Nansen and Johannsen who, after leaving the "Fram", lived for 15 months, including of course the long night of an arctic winter, mostly on the floating ice. To carry stores sufficient for this time, even with the help of their dogs, who, except the last one, ate one another, would have been quite impossible. They lived chiefly upon seals, bears and walrus; the first had to be stalked, while the aggressive behaviour of the two others offered some easy shots. Two incidents in this journey are unforgettable.

They landed on a floe to take bearings, mooring their two kayaks lashed together, their sole hope of survival, to the ice; and while looking around saw that the mooring had failed and the kayaks were drifting away on a strong current. Nansen, with little hope of success, swam after them, in his heavy clothing, and overtaking them, was almost too exhausted and cold to clamber aboard, not an easy feat at any time. One cannot read the story of these ghastly minutes without feeling sick all over.

At length they reached a considerable area of land, actually Franz Joseph Land, not knowing where they were, and, hearing a dog bark, knew that after 15 months they were within reach of other men.

THE FRAM AND THE KON-TIKI

Not far away from this Museum are housed two of the most famous ships in the world, Nansen's "Fram" and Heyerdahl's "Kon-Tiki." No two ships could be more utterly different in construction, yet both were designed to be entrusted wholly to the guidance of ocean currents. And perhaps their most remarkable feature is, that both reached their journey's end safely. The Fram lies there as immobile as ever she was in the ice, but one can see the massive strength of her timbers to which Nansen trusted in the face of all the prophets of disaster.

VIKING SHIPS

Three Viking ships of the period A.D. 800

to 1000, with their contents, are displayed in a Museum, the Universitetets Oldsaksamling; the most conspicuous feature of the ships is the miraculous skill with which the planks are curved and fitted together at the high prow and stem. But the Museum serves another purpose also; children of State School age (7 - 15) are brought to it in swarms and provide an anthropological and social survey of Norway. One sees, among many different types, long-legged fair boys and girls who are obviously going to be tall. All the children look clean, at any rate as far as visible parts are concerned, and well-fed, and nearly all look healthy and a large proportion are distinctly good-looking; at the time of our visit they were lightly and suitably clothed although the hot weather had begun only a few days earlier. In Norway, as in Iceland, there are various human types, ranging from tall, fair, and blue-eyed to short and dark, the latter thought to descend from captives brought back by the ancestors of the former, who ravaged the coasts of Western Europe in raids of which the records, in the Heimskringla Saga, become monotonous.

The Norwegians of A.D. 800 were as capable as are religious people at the present day of convincing themselves that there is a "Next World" in which they would be able to enjoy all that they most wished, and in Norway very practical steps were taken to ensure that the supplies arrived at the right time, at any rate in the case of V.I.P's. Fifteen horses, four dogs and an ox were slaughtered for the young queen buried in the Oseberg ship, and an elderly arthritic woman lay near her who may or may not have died naturally at a suitable time; there was also a vast collection of useful objects ranging from scissors and apples to a four-wheeled cart. One could have no more perfect demonstration of Faith in Immortality.

NORWEGIAN FOOD

Every traveller in Norway must admit that he is impressed by the excellence of the food. The Scandinavian nations have developed what is perhaps the most satisfactory of all methods of supplying food, the Smorgasbord, a table bearing various kinds of meat, fish, cheese, vegetables, fruit and bread with eggs, salads and milk, from which, with close attention, a generous selection is made, often more than once, while goblets of milk are

filled and refilled.* This procedure surely achieves, both quantitatively and qualitatively, the social ideal of "the Greatest Happiness to the Greatest Number". The statement is made that rats on a synthetic diet, if provided with solutions of all the chief vitamins, consume appropriate amounts of each one; perhaps the cogitations and hesitations which one observes around the Smorgasbord are the occasion for some such mysterious arithmetical process.

One wonders whether the creation of the Smorgasbord arose as a revolt from the extreme monotony in former times of the winter diet of which there are many indications in the Icelandic Sagas and vivid pictures of more recent date in the novels "Independent People" and "Salka Valka", of the Icelandic Nobel Prizeman Halldor Laxness. Bread was by no means the most abundant food in the North and the unending dried cod took its place to a large extent.

Mushrooms appear often in Norwegian dishes. Professor Kreyberg had found a fungus growing which he had never met with before, but knew to be edible, and with perfect confidence in his botanical taxonomy, we ate a dish of them.

HAYMAKING AND CATTLE

Haymaking is an absolutely vital industry for Norway, and for all other countries such as Iceland and Finland where pasture is covered with snow for a large part of the year. The grass upon many of the small and steep places from which hay is collected is cut by a scythe very much shorter in the blade than ours. The field opposite our hotel at Bulken was cut by a two-horse mower; then a man with an iron spike makes holes in the ground a few feet apart along a series of lines across the field while another man places a stake in each hole and stamps the earth down around it. A wire from a spool is wound round each post in succession about eight inches from the ground, and women with pitchforks then collect the grass very deftly into portions which will hang neatly upon the wire; when it is thus covered, a second wire is placed in position above it, and so on until the row of stakes bears about half a dozen wires, and the whole is covered with grass. Thus a series

of fence-like structures is produced standing at intervals over the whole field. Any hay remaining upon the ground is gleaned with rakes. There have been frequent showers, which is unfortunate. Readers of the Icelandic Saga of Thorgunna will remember an occasion when such showers at haytime consisted, not of water, but of blood, a dreadful portent indeed.

In some areas the hay consists largely of flowering plants other than grasses, which give to the high pastures a wonderful variety of beautiful colours. These flowers of Norway do indeed "paint the meadows with delight".

The sheep which we saw seemed to be all of one breed; the lambs are allowed to retain their tails. Lambs which are sent up with their mothers in early summer to the best mountain pastures can be slaughtered when they return in the autumn with a yield of 60 or 70 lb. of meat which can be kept in cold storage. Some amount of this meat is smoked in the form of sides; the smoke of juniper or alder wood gives the best flavour.

The lambs are born in the spring while the mothers are still in the sheds and the ground snow-covered, hence in their short lives they make no inroad upon the precious store of hay. They are shorn once and yield of course a sheepskin as well.

The cattle that we saw were either of the beautiful Telemark breed, with long horns, and white back-stripe, forehead, and belly, or the red-coated Rödkolle; they produce a specially attractive creamy butter which, in hotels at any rate, is supplied lavishly at all meals. On the mountain farms one sees the Norwegian horses, strong, plump and well-treated. In the partially wooded mountain pastures a horse, cow or ewe bears a bell which suggests the question, in how many countries was this method of tracing cattle devised independently, and when?

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* Data collected by W.H.O. show a range of average consumption of milk, in Kg. per head per annum, ranging from 4 in Japan to 296 in Iceland.

A CASE OF IDIOPATHIC SUB-ACUTE NECROSIS OF THE LIVER *

by R. C. COOK

*"The King of Babylon . . . made his knives bright,
He consulted with images, he looked in the liver."*

Ezekiel, Chapt. 21, Verse 21.

INTRODUCTION

THE LIVER has such a variety of functions that it is not surprising that widely diverse biochemical insults upset the metabolism of its cells. Many things have been implicated as primary causes of parenchymal disease, ranging from virus infections, pneumococcal septicaemia and Entamoeba infestations, to the toxic actions of drugs and industrial chemicals, and to antigenic factors in Banti's disease (hepatic necrosis associated with splenomegaly and anaemia). Despite the multiplicity of the primary causes, the clinicopathological picture has in many instances similar features; while in contrast, the same primary cause may produce markedly different pictures in two individuals, though in many instances the exact aetiology is obscure, as in the present case. The paradox is to some extent explained in that, firstly, the nutrition of the patient, the existence of previous liver damage, and even ill-defined hereditary factors determine the course of the disease in the individual; and secondly, there being no specialisation of different parenchymal cells for different metabolic functions, however specific the toxic action of the primary cause, the whole metabolism of the individual cell will be disrupted. So there are a number of variable factors interacting to determine the course of an individual case.

In the present case of M.F. the aetiology is unknown, and her first attack of jaundice was at the age of 12 years. When seen by the author she was 16, and had been admitted complaining of a recent episode of melaena and of ascites.

CASE HISTORY

In 1946, at the age of 6 years, a patent ductus arteriosus was ligated, and M.F. has

had no further cardiac symptoms or signs, other than a systolic bruit maximal over the first and second left interspaces.

In February 1952, when 11 years old, she had a tonsillectomy which was followed by some post-operative haemorrhage, and two weeks later M.F. was noticed to be jaundiced. She had neither pain, nausea nor vomiting. Her urine was dark, and her stools sometimes pale, and the cutaneous jaundice lasted with variations in intensity for the next two months and she was still in the same condition on admission to St. Bartholomew's Hospital in June, 1952. On examination then she was described as having "slight hepatomegaly and more obvious splenomegaly". Her liver function tests were found to be grossly abnormal. A liver biopsy was contemplated, but not performed because of a persistently low prothrombin index (48-56% of the normal mean) despite intensive vitamin K therapy.

For fourteen weeks she was treated with a high protein, low fat, high carbohydrate diet, with amino acid and vitamin supplements, but remained jaundiced with no improvements in her liver function tests. She was sent home to continue dietetic treatment, and to be reinvestigated six weeks later.

At the end of October 1952 she was readmitted for further investigation, and a course of Aureomycin. Her physical signs were unchanged, that is she was still jaundiced with hepatomegaly and splenomegaly. Her liver function tests showed no significant improvement. There was no evidence of a raised portal pressure. She continued her diet, including 80 G. of protein, and was given Aureomycin 250 mgs. b.d., which produced a marked subjective improvement, and was free from toxic side effects throughout a two months' course.

At home, being followed up as an out-patient, her jaundice faded and she showed

* An abstract of the winning essay for the 1957 Bentley Prize.

some improvement in her liver function tests, though the liver and spleen remained palpable. She returned to school (for part time only at first) but was not allowed to play games.

Just over a year later in March 1954, at the age of 14, M.F. had an upper respiratory infection. She had general malaise, anorexia with nausea and vomiting. Her eyes were described as swollen and puffy, and her urine was dark, but also contained much albumin. Five to six days after the onset of this, she noticed some abdominal distension, and was later admitted to her local hospital with right sided abdominal pain, ascites, fever and a leucocytosis—the white count being 29,000 cells per cu. mm. On paracentesis abdominis 4½ pints of yellow fluid were drawn off. It contained pus cells but was sterile on culture and guinea-pig inoculation. The ascites reaccumulated and some peripheral oedema appeared also.

At the end of April she was transferred to St. Bartholomew's Hospital, where she was found to have moderate abdominal distension with leakage of ascitic fluid from the site of paracentesis. The area of liver dullness was normal, the spleen was enlarged two finger breadths below the costal margin, and there was no sacral or ankle oedema. Her temperature at first subsided but then rose and remained high. The urine still contained albumin and was infected with *B.coli*. This infection was cleared by fourteen days' treatment with Oxytetracycline, when the fever subsided also. The ascitic fluid was slightly turbid and almost colourless, it contained a small number of lymphocytes and red cells. No organisms were found on Gram or Ziehl Neelsen films, and it was again sterile on culture and inoculation. The total protein was given as only 0.16% and on electrophoresis no albumin was detected. After this she was only occasionally febrile but the ascites persisted and her urine was not free of albumin, red cells and hyaline casts until July. She was kept on a salt-free, high protein, high carbohydrate diet with vitamin supplements, and given penicillin and oxytetracycline.

The diagnosis of this episode was acute nephritis, with a secondary urinary infection, the ascites being due to the very low level of plasma albumin following the prolonged and heavy albuminuria. There was no evidence of a raised portal blood pressure at this time.

For the next two years she showed a steady

improvement, and continued normal schooling, playing some games.

At the beginning of October 1956, when aged 16 years, M.F. had two days off school because of a cold. After a few days she again noticed some abdominal swelling, and ten days after the original "cold", vomited about half a cupful of dark blood and passed dark sticky stools for two days. She was tired and listless and the abdominal swelling increased. On admission during the next week she was no longer nauseated, had not vomited again and her stools appeared normal, but tests for occult blood were positive for some weeks. She was not clinically jaundiced. She had no urinary symptoms. At this time she could be described as of a slight build and weighed approximately 110 lbs. after her ascites had subsided. Her periods had not yet started. She was mentally alert and intelligent, though naturally handicapped by her loss of schooling.

On examination she appeared anaemic (her haemoglobin was found to be 46%). Though of a dark complexion, there was clinically no jaundice in the skin or sclera. Her abdomen was very distended with a girth of 90 cms. (35½ inches) at the umbilicus. There were fairly prominent veins on the front of the trunk with the blood flowing towards the chest. The spleen could be felt by ballotement, but not the liver. The extent of the liver dullness was impossible to determine at this stage because the diaphragm was so elevated by ascites—there being in fact, shifting dullness and a fluid thrill. There was a faint palmar and plantar flush, and a single spider naevus on the left hand. There was no peripheral oedema. The liver function tests showed active liver damage, and the serum bilirubin was raised to 2.5 mg per 100 ml. When there was no evidence of further haemorrhage, a barium swallow showed prominent oesophageal varices.

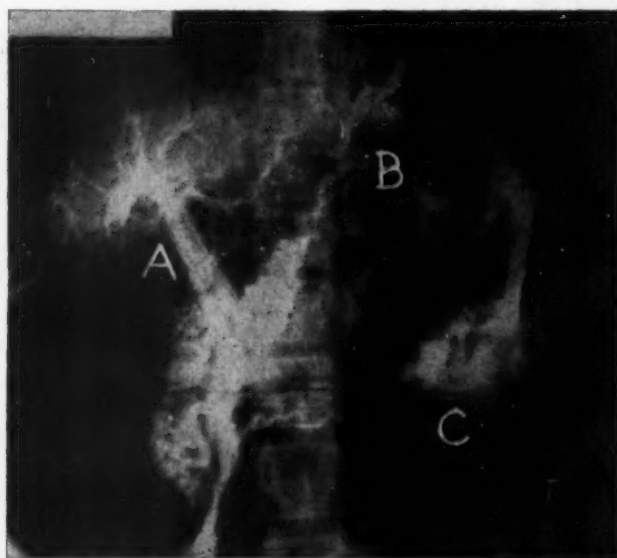
She was transfused with three pints of blood at the beginning of November which raised her haemoglobin to 74%.

With rest and a low salt diet the ascites showed little change until she was given Tabs. Diamox 250 mg. daily for two days, with Mersalyl 2 c.c. on the third day. This produced a marked diuresis and the ascites was much improved within the first week. On a high protein diet and vitamin supplements her liver function tests showed a slight improvement, and it was decided that if they could be raised to a sufficient degree a porta-

caval anastomosis should be performed, in view of the dangerous oesophageal varices and the risk of another major haemorrhage.

The operation was planned for early in the new year, but unfortunately what little peak of liver function there was, came a few weeks before, and her plasma proteins having climbed to 6.4 mg.% (albumin 3.7, globulin 2.7 mg.%) fell slightly to 5.5 mg.% (albumin 3.2, globulin 2.3 mg.%). Thymol and zinc sulphate turbidities were both higher in January than late December, but serum pseudocholinesterase had risen from 22 to 29 units and her serum bilirubin had fallen to

appeared normal. The spleen was large but of normal appearance. A portal venogram confirmed that there was an apparently normal portal vein, but a minute liver and large numbers of tortuous varicose vessels in the region of the pancreas and running upwards towards the oesophagus. The portal venous pressure at the level of the anterior abdominal wall was 335 mm. water (normal range 50-210 mm., mean 100 mm. water), and the portal flow was 3 cm./sec. (normal mean 9.7 cm./sec.). An end to side anastomosis of the portal vein to the vena cava was made (stoma=16 mm.). There was no immediate



A—"Normal portal vein"; B—"Tortuous varicose vessels . . . running upwards towards the oesophagus"; C—Opacity under the capsule of the spleen after an attempted splenic venogram.

1.3 mg.%, the lowest since admission—but still higher than an "out-patient" value of 0.8 mg.% at the beginning of 1956.

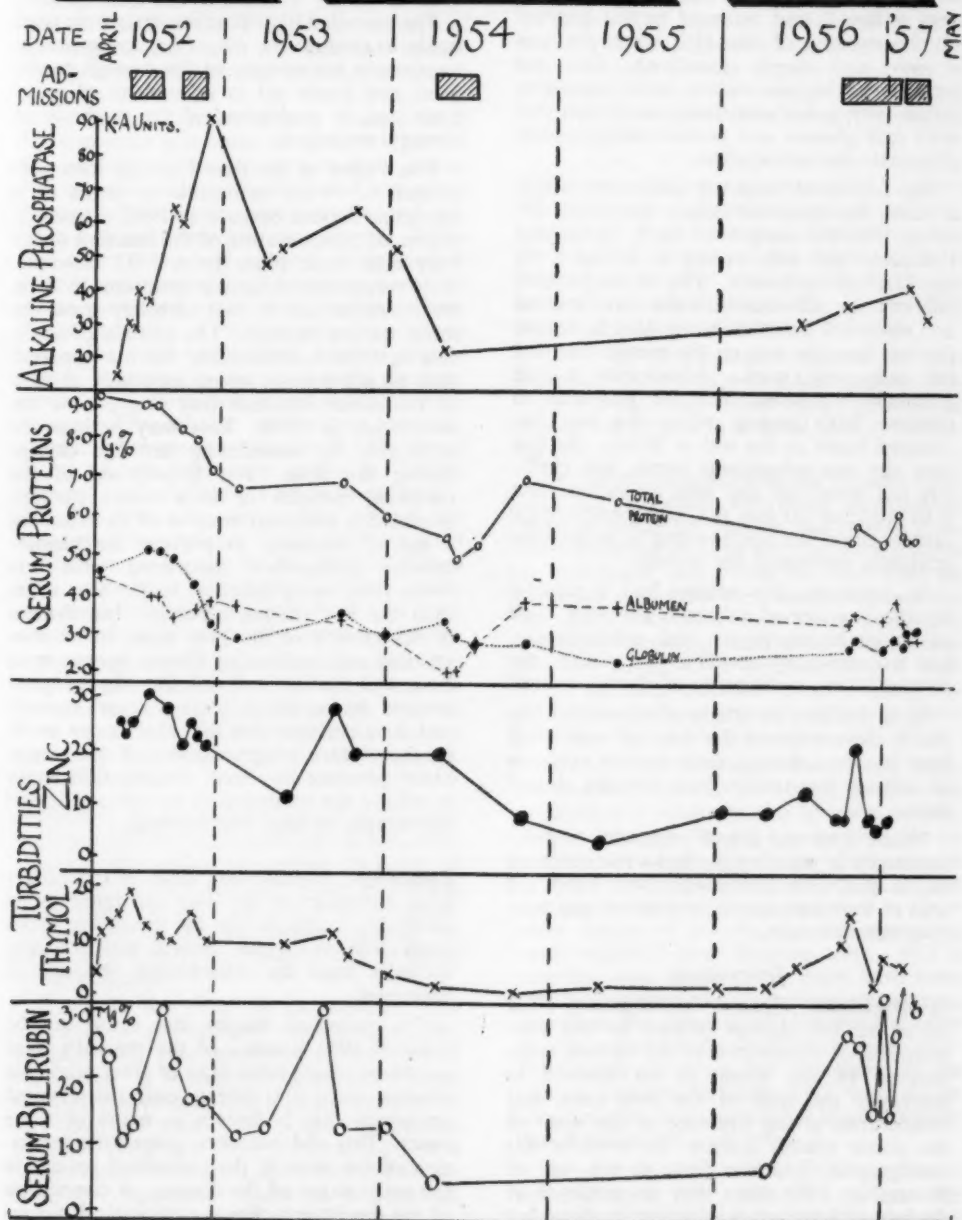
Operation was performed by Mr. A. H. Hunt on January 18th, 1957. As far as the medical aspects of her case are concerned this is of particular interest in revealing the actual state of the liver and the portal venous pressure.

There was no ascites on opening the peritoneum. The liver was very small (about 8 inches by 5 inches by 5 inches), had a brownish yellow nodular surface and no part

significant change in the portal pressure (fall to 320 mm.). The speed of flow increased to 7 cm./sec.

Five pints of blood were given during the operation and M.F.'s condition was very satisfactory afterwards. There was some slight abdominal distension for a week, and she was slightly jaundiced, her serum bilirubin rising to 3.9 mg.%, but falling three weeks after the operation to 1.2 mg.%. When taken off sedative drugs she was mentally alert and showed no signs of hepatic failure.

LIVER FUNCTION TESTS



M.F. was discharged from hospital on February 9th, three weeks after operation, in a very satisfactory condition. The following day she felt very tired after her journey to Tunbridge Wells and became "sleepy and very yellow", and returned to this hospital on the evening of the 11th when she was drowsy and deeply jaundiced. She was treated for hepatic failure with impending coma, with a diet containing no protein, but with oral glucose and parenterovite, sodium glutamate and tetracycline.

She recovered from her listlessness within a week, but remained deeply jaundiced, her serum bilirubin rising to 29 mg.% by the 14th February, and only falling to 9.5 mg.% by the 23rd of the month. The serum proteins fell and the albumin/globulin ratio became and remained inverted during March, despite the fact that she was on the protein-free diet for only one week. Afterwards it was gradually increased, and she was able to tolerate 80 G protein when she was discharged home at the end of March. At this time she was subjectively better, and clinically not jaundiced and with no ascites. She is to continue her low salt, high protein, high carbohydrate diet while resting at home, very gradually increasing her activity.

In summary, this patient had a painless hepatic jaundice of unknown aetiology, with an initial hepatomegaly and splenomegaly, and was obviously unwell for six months, the disease taking a sub-acute to chronic course.

Next she had an attack of acute nephritis which demonstrated the loss of reserve of liver function, though there was no evidence of actively progressive liver damage at that time.

Nearly four and a half years after her initial attack of jaundice she had a haemorrhage and ascites, with splenomegaly, but a reduced area of liver dullness on percussion, and poor liver function tests.

DISCUSSION

Investigations. Special investigations that added to the clinical picture in this case consisted of estimations of the various components of the serum in an attempt to determine the state of the liver cells, and radiographs giving evidence of the state of the portal venous system. To consider this radiographic evidence first, at the end of November 1952 there was no evidence of oesophageal varices in a barium swallow, but

they were very prominent in October 1956 after the haemorrhage, and they were the presumed site of haemorrhage. The same condition was demonstrated by the venogram at the time of operation.

The so-called liver function tests were used firstly to confirm the diagnosis, and secondly to estimate the severity of the damage to the liver, and hence aid in assessment of prognosis and in evaluation of the methods of therapy employed.

The values of the liver function tests performed^{6, 7, 10} are explicable in terms of a sub-acute hepatic necrosis in 1952. Some fair degree of compensation of the function of the liver cells took place from 1953 onwards. With recurrence of hepatic symptoms in 1956, the bilirubin and thymol turbidity show the most marked changes. The episode of nephritis in 1954 is remarkable for the apparent lack of any hepatic upset, especially in view of the minor infection that precipitated the recurrence in 1956. This may perhaps be explicable by considering her age change during this time. The hyperplasia of the surviving nodules of liver tissue perhaps provided a sufficient reserve of function for a girl of fourteen, to prevent the hepatocellular dysfunction associated with any fever, from being manifest in any way other than the low plasma albumin. Impairment of the growth of the liver tissue in its constricting and contracting fibrous stroma must have still further reduced the physiological reserve during the next two years' growth, and it is perhaps this fact that bodes so ill for her future prognosis, even if the portal blood pressure has been reduced sufficiently to relieve the oesophageal varices and lessen the danger of fatal haemorrhage.

Pathology. In this case, ideas of the underlying pathology of the liver and spleen must inevitably come firstly by projection from cases with analogous clinical pictures, and secondly from the information obtained at operation.

The proposed biopsy that could not be done in 1952 because of the patient's poor condition would have been of great academic interest, since it is largely only the terminal pathology that is known in many of these cases. This end condition gives little indication of the state in the individual patient in the early stages of the disease. A conception of the developing clinico-pathological picture

is required more than descriptions of isolated moments in this progressive disease.

At M.F.'s operation, the liver was found to be shrunken and cirrhotic. Its appearance closely matched Laennec's classic description: "The liver was reduced to one-third of its original size . . . ; its external surface lightly mammillated and wrinkled showed a greyish-yellow tint. . . ." A portion was removed and sectioned and stained with haematoxylin and eosin. It showed a part of the capsule and a segment of liver tissue. The capsule was slightly thickened, and some fibrosis affected the portal tracts and extended slightly into the parenchyma. There was a good deal of chronic inflammatory cellular infiltration in the fibrous tissue, in which distended veins were visible. There was no evidence of hyperplasia of the biliary tree. The cells were closely packed and of foamy appearance, due to a high glycogen content, but there was no evidence of fatty change. The lobular architecture was abnormal in the specimen sectioned. The actual report on the specimen spoke of "slight fibrosis", and an "early Laennec's cirrhosis". But the part sent was in fact one of the nodules of hyperplastic tissue, and presented a much more favourable histological picture than might have been expected from a more representative piece of tissue from this liver, which was, macroscopically, grossly cirrhotic.

Pathologically, then, it would seem that this is an example of sub-acute hepatic necrosis as originally described by Muir in 1908,⁹ and related to the clinical picture in a survey of idiopathic cases in St. Bartholomew's Hospital.³

Aetiology. In this particular case, as in many similar ones, the exact aetiology is unknown. There is no history of contact with any of the common liver poisons. There is nothing to substantiate any idea of a virus infection. Dietary deficiency can almost certainly be ruled out. There is no family history of blood or liver disease.

There is the story of the tonsillectomy followed by a secondary haemorrhage, presumably due to a streptococcal infection of the fauces. It is tempting to postulate some form of sensitisation and allergic response as suggested for acute (Ellis Type I) nephritis, and for rheumatic fever in response to a streptococcal infection a few weeks before the onset of symptoms. There is however no corroborative evidence for such a guess.

The Diagnosis. This rests largely on the history, clinical picture and course of the disease, while other investigations have confirmed this and excluded other possibilities.¹¹ The initial illness of nearly six months hepato-cellular jaundice without an obvious acute episode is characteristic of many cases of sub-acute necrosis of the liver.³ As in many such cases the disease has shown a period of remission before another episode of liver failure.

Treatment. The management of M.F.'s case illustrates many of the features of the treatment of liver disease. Basically such treatment is almost entirely symptomatic or supportive therapy until the liver has recovered to such an extent that it can again maintain a reasonable degree of health.

Until the post-operative episode of liver failure, M.F. was kept on a high protein diet, with vitamin and amino acid supplements during her periods in hospital, and as an out-patient.

On her return to hospital in February 1957, with severe failure and early neurological signs of coma, the protein was removed entirely from the diet and she was given glucose in fruit juices, and a little fat, until after six days her symptoms were controlled and she was given 25G. protein per diem, which was gradually increased until after three weeks she was taking 60 G. and tolerating it well. While on the protein-free diet she was given no amino acid supplements, but was given glutamic acid, and tetracycline.^{1, 3, 4, 5, 10, 12}

One of the bulwarks of the general treatment of liver diseases is bed rest. In an acute hepatitis it is relatively easy to insist on this, and to diminish the call on the liver for its various metabolic functions. However in subacute and chronic cases such as the present one, it is obviously necessary to allow some degree of activity despite continuing poor results of liver function tests. M.F.'s activities over the last five years have been very light compared with her contemporaries, though in the summer of 1956 she was able to live a more normal life than previously. Presumably the strain and excitement of the journey home in February 1957, were major contributants to the episode of hepatic failure that followed so soon after.

On admission in October 1956 symptomatic treatment was directed against the anaemia (Hb=46%), the ascites and the

raised portal pressure that was ultimately responsible for the anaemia. Within six weeks, with successive transfusions and ferrous gluconate (gr. 10 b.d.), her haemoglobin returned to a more satisfactory figure.

Her ascites was treated by bed rest and a high protein diet that was "salt-free"—i.e. contained less than 0.5 G. (22mEq.) per day. The ascites continued to increase slightly after her admission in 1956 until she was given biweekly Mersalyl (2 cc.). She was also given Diamox which Sherlock¹⁰ maintains is ineffective in this condition and which is said to precipitate neurological complications. There was no evidence of this in M.F.'s case.

Paracentesis was not considered in 1956 because it would have considerably depleted the body's pool of protein. It was performed in 1954 to eliminate the possibility of a tuberculous peritonitis.

M.F.'s treatment is, in some senses, paradoxical, since on the one hand a high protein diet was required to stimulate hepatic regeneration, and the synthesis of plasma proteins to prevent the accumulation of ascites. On the other hand, such a diet may considerably raise the blood ammonium levels if the liver function is poor, and so precipitate coma, and during the episode of failure in February, when she was distinctly drowsy, protein was withheld, but returned to the diet as soon as possible.

The Prognosis in liver disease is notoriously hard to forecast with any certainty, and the liver seems to have unexpected powers of regeneration and recovery.

The degree of liver damage, especially as shown by the plasma albumin level is considered a useful basis for estimating the future course of the disease. Levels below 3.4 G.% are said to carry a grave prognosis^{9, 10}, and the level of jaundice is deeper and more constant in the terminal stages², though Sherlock¹⁰ maintains that there is no direct correlation between the serum bilirubin, and the histological picture and the prognosis. The appearance of complications such as haemorrhage, ascites and coma are again bad signs.

M.F. has on this basis a poor prognosis, but it is remarkable how well she has come through each of these complications, and though optimism is quite out of place, it would be unwarranted to say that the liver

might not show further regeneration with many years of relatively efficient functioning.

CONCLUSION

In the present state of knowledge about liver diseases, the future management of this case consists essentially of continuing conservative treatment in an attempt to maintain liver function at its maximum possible level, and there is nothing that can be done that will directly improve the state of the liver. It is really a matter of preventing anything from causing further damage to the liver or taxing it beyond its abilities.

It is hard to see any further line of investigation that would in any way provide information that would lead to improvement in this only partially satisfactory treatment. Only partially satisfactory because all that one can hope to do is anticipate complications and take suitable steps to counteract them—the underlying disease is still present and a cure is beyond present horizons. At best the patient can be taught to live with his disability—a disability that does not just hinder some simple aspect of his life that can be fairly readily compensated, but it is a disability of his fundamental metabolism that has far-reaching effects in almost every system, limits life in almost every aspect and inevitably shortens it.

In such a case as this one needs something that would control, prevent or even reverse the fibrotic changes in the liver, so that the parenchyma could regenerate more freely. But what is initially required is an understanding of the aetiology of such cases, so that while complete cure is impossible, preventative measures can be instituted where appropriate.

But more important from the point of view of cure than the primary aetiological factors (which are known in many instances of sub-acute hepatic necrosis) is the early pathogenesis of these cases. Why should an acute hepatitis show an apparently complete spontaneous cure in most instances, but continue into an irreversible sub-acute phase in others? Again, in many cases, as in M.F.'s there is no known acute phase, the disease is of insidious onset and should perhaps be regarded as "sub-acute" from its inception.

The liver may be properly regarded as a great centre of metabolism. Its disturbances are reflected in almost every aspect of the

body's function. It is perhaps the diversity and complexity of the vital functions that occur in the histologically "simple" liver cell that makes the situation so complex from the point of view of its pathogenesis, and in its treatment and in the future, one hopes, its virtual, and finally, actual cure.

Acknowledgments

I should like to thank Dr. K. O. Black and Mr. A. H. Hunt for permission to report on this case.

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EXAMINATION RESULTS

UNIVERSITY OF LONDON

Special Second Examination, July 1957

Ashby, P. M.
Bartlett, J. J. D.
Benedikz, J. E. G.
Bratton, L. W.
Brown, M. D.
Darmady, J. M.
Davies, R. R.

de Alarcon, R.
England, R. W.
Evison, P. R. H.
Gillespie, H. M.
Harrison, R. I.
Hatch, J. D.

Holloway, A. M.
Kingsley, D. P. E.
Martinez, G. S.
Morrison, J. D.
Parker, J. B. R.
Priscott, R. B.

Robson, J. R.
Smith, C. R.
Stewart, A. F. S.
Theobald, G. M.
Thomas, B. O.
Tomkins, I.

Special First Examination, June 1957

Barrington, D. E.
Crawhall, J. C.
Gardos, G.

Green, G. S.
Jackson, U. I.
Kingsley, P. J.

Knight, E.
Miller, R. G.
Randle, G. H.

Ross, A. P. J.
Sharp, G. T.
Smyth, N. W.

The following General Certificate of Education Candidates have qualified for exemption from the First Medical:

Bergel, R. C.
Gugenheim, P. S.

Patrick, P. L.
Stanley, R. B.

Stevens, J. E.
Terry, A.

Tomlinson, R. J.

B.Sc. Special Examination, 1957

Besser, G. M.
Beardwell, C. G.
Noble, M. I. M.
Ballantine, B. N.
Chapman, J.
Childe, M. W.

First Class Honours
Second Class Honours
Second Class Honours
Second Class Honours
Second Class Honours
Second Class Honours

(Upper Division)
(Upper Division)
(Lower Division)
(Lower Division)
(Lower Division)

CONJOINT BOARD

Final Examination, July 1957

Pathology
McKerrow, M. M.
Medicine
Godrich, J. E.
Hackett, M. E. J.
Alade, R. B.
Surgery
Woolf, A. J. N.
Midwifery
Godrich, J. E.
Alade, R. B.
Lewis, J. H.

Hall, F. G.
Batterham, E. J.
McKerrow, M. M.

Stuart, I. M.
Vyle, E. A.
Bower, H. P. H.

Vyle, E. A.
Mather, B. S.

Hackett, M. E. J.
Hall, F. G.

The following student has completed the examination for the Diplomas M.R.C.S., L.R.C.P.
Batterham, E. J.

EIGHT MEN IN A CRATE

by R. GOLDSMITH

OUR JOB as the Advance Party of the Trans-Antarctic Expedition was to get to the southernmost tip of the Weddell Sea; once there, to land our stores and establish a base. With the base established, our scientific duties covering meteorology, survey and physiology were to be carried out; also, the final research into vehicle-behaviour and a land reconnaissance of the first part of the route to the pole was to be attempted.

In carrying out these tasks we had continually to fight the defences with which the continent is guarded. The first objective was achieved with the help of the stout little ship "Theron" and her Canadian-Norwegian captain, Harold Maro. He, his officers and crew fought the ice and won. He is a tough sealer and his years of experience and his skill, handed down from his father, in handling a ship in ice stood us in good stead. For five weeks though, in spite of all the digging and blasting, the ship was locked fast in the ice. Here in the ice, with everyone set on the same purpose, a team was built out of the nineteen individuals on board. There were eight of the Advance Party and eleven so-called observers, among whom three were from New Zealand getting their first experience of the Antarctic. We learnt how inclement the ice could be. We learnt that all man's efforts were puny compared with the vast forces that the ice of the Weddell Sea had at its command. Our hopes and fears, tacit and expressed, centred on the same object: would we be able to break free of the ice before it was too late to go south and find our site? The very short Antarctic summer, with its twenty-four hours of sunlight, was running out when we came free and sighted the towering, brilliant white cliffs of the Caird Coast. The tension that had been so evident on shipboard was now considerably eased as we sailed 700 miles south along the ice coast. It seemed as if everyone had had a weight lifted off his mind, and we were now gathering strength for the next round. Southwards we sailed. Then we could go no further south—we had reached Vahsel Bay. Last visited in 1911 by Dr. Filchner in

the "Deutschland", we were only the third ship to penetrate so far south. Here at Vahsel Bay there is some exposed rock, the only rock to be seen on the eastern shore of the Weddell Sea. We turned west and sought a landing place. Excitement ran high as, forty miles from the bay, we came alongside the sea ice and Bob Millar, a New Zealand surveyor, was the first to jump ashore. A quick reconnaissance showed a difficult but feasible way up the drifted-up ice-cliff to the top of the shelf and a suitable site some two miles from the ship. The experiences of an American expedition this year showed us how lucky we were to have found such an excellent landing place in exactly the position planned months before on the maps in London. Landing places around here are scarce, and it is probable that there are not more than three between Vahsel Bay and the end of the Filchner shelf some 300 miles to the west!

But the Antarctic had not yet given up, it had more cards to play. Blizzard and extreme cold were now our enemies. Each night the sea froze; the pack, never far off shore, moved in ominously when the wind blew from the north. A blizzard on the 2nd February, three days after our arrival, forced the ship to leave the ice edge. Our stores on the sea ice were swamped in icy sea water. Five men, unable to return to the ship in the appalling visibility, spent the night huddled in a shelter of crates, eating frozen ham and tomatoes, sardines, sugar and margarine for breakfast! This looked almost like a replica of the unlucky Filchner expedition—forty-five years of development and accumulated knowledge could not conquer the defences of nature. Fortunately, the wind relented, the ship returned, the tired five were brought on board to rest and the stores were saved from the fast freezing slush. Unloading became more frenzied but less efficient—stores were thrown off and taken half a mile to the base of the ice-cliff and there deposited in no very great order. On the eighth day, February 7th, the wind again brought in the pack. The new ice, compressed by the advancing pack, turned to a sticky porridge: the ship had

to leave.

So, with 300 tons of stores to move, the eight of us waved goodbye to our home. It is difficult to describe the feelings I had. This sort of situation occurs so rarely in life; it is, in the words of the cinema, a "natural". Perhaps the first feeling was one of awed fear. Here were my companions and I, standing on one of the world's most inhospitable shores, with no shelter and nowhere to go. This was a world where you could not go round to the local shop to buy what you had forgotten. Now the months of planning and buying were to show their fruit; all that was not there now we would have to do without. We were ashore with our stores and now it was up to us and us alone. Even the dogs, spanned out in two long lines, seemed awed and kept quiet as the ship sailed away. Everyone was deep in his own thoughts for a few moments, but soon, with the realisation of our vast job, we started up to our desolate base site. A year later I heard what a comforting sight it was for the watchers on the ship as they saw the Weasel making its way up the slope. Their sudden departure was a difficult decision, not made without great misgivings.

That night we pitched our tents and many of us had the novel experience of sleeping on snow and struggling into sleeping bags. It would take a whole book to describe how we lived from then on. How, in the next ten days, we transported 100 tons of stores to the base site; how we decided to begin on our hut before getting the rest of the stores up; how we re-erected the crate in which the Sno-cat had come, and how we lived in it. Then, on the 20th March, the most ferocious weapon of the south—blizzard—dealt us our worst blow. We were progressing slowly but well, though with the temperature falling to -20°F and the wind blowing constantly work outside was becoming increasingly difficult. Ralph Lenton, our carpenter, was supervising the building work with meticulous care so that everything was put together perfectly in his way, and the skeleton of the hut was almost complete when our great blizzard came. It started one afternoon, giving no warning of its ferocity or length. It blew for six days at gale force, the temperature dropping to -40°F (-40°C). Throughout this time we remained indoors in our crate, sleeping at night in tents.

The crate, a well-made packing crate

similar to those in which cars are exported, was our daytime shelter. It was 20ft. long, 8ft. wide and 9ft. high. In it we cooked, ate and had our being. It became the wireless room, workshop, 'met' office, surgery, physiological lab, recreation room, kitchen, dining room and bedroom, severally and together. One end was the kitchen—a bench with shelves above. Three primuses acted as the kitchen stove. Under the bench were more stores. To the left was the water tank, a dustbin with a paraffin heater underneath. This was kept stoked with snow blocks and with luck there was always some water for cooking, drinking or washing up. There was, however, no water to spare for regular washing, nor was there, in the crowded space, with the temperature rarely above 35°F , much temptation to attempt to wash. In the middle we had a 9ft. table and two benches supported on food boxes. A shelf along one wall was all the private space in the hut though from time to time new nails were driven into the walls so that more and more of one's private belongings could be found storage space. At the far end was the workshop—another bench, usually crowded with oddments of one sort or another, more or less frozen to the bench. The wireless, a twenty-four volt vehicle wireless, also stood at this end, protected from the alternating showers and freezing by a waterproof covering. Nevertheless, ice stalagmites often grew on it and one had to knock the ice off the earphones before putting them on. (Somewhat similar to knocking weevils out of ships' biscuits in the sailing ship days.) The walls were quilted with fibre glass, but in spite of this frost formed rapidly on them. This frost had one advantage, for its light-reflecting surface added considerably to the rather dull illumination. I foresaw some imaginative paint manufacturer simulating this type of surface, to be called "Antarctic Crystal". The light came from two small perspex windows and, in the first balmy days, from the door. Both these sources became gradually obscured, firstly as the snow drifts piled up against the crate, finally covering it to the roof, and secondly as the seasons progressed so that on April 14th the sun set for the last time for the winter, the twilight giving way to twenty-four hours darkness. In these conditions we lived for nine months, the ceiling of the crate becoming more and more festooned with clothes hung up there ostensibly to dry, though after

weeks up there they seemed as damp as ever. The ceiling too became frost-covered, and when the outside temperature rose above zero the ceiling inside would begin to melt and drip. What a wonderful sight it was to see the eight of us sitting at our meals, hoods up, trying to dodge the drips; umbrellas were not, unfortunately, among our equipment.

In this hut we weathered the great blizzard during which the door was finally covered. In fact, all our attempts to keep it clear failed; even digging it out every half hour proved useless, and eventually we cut a

exposure; our best efforts were of no avail to save her. It requires severe conditions to injure a Husky born and bred in similar conditions in Greenland. The skeleton of the hut had caused in its lee a huge drift, 20ft. high, 50ft. wide and 60ft. long, burying beneath it all the prefabricated walls for the hut. The combination of wind and high tide had caused the sea ice to break up, and with it all our coal, ninety per cent of our paraffin and petrol, the balloon, the workshop hut sections, a tractor, balloon chemicals, and an assortment of engineering stores. When Ken



The shelter of the hut is complete. The crate is in the right foreground and one of the sleeping tents on the left. Note the large drifts to the left (north) of the skeletal hut and crate, the latter engulfing a tent.

small hatch through to a canvas lean-to behind the crate where we kept our current food supply. In the evenings we would troop to our tents to sleep. This was the performance of the day. Everyone would be climbing over one another looking for extra clothing for the journey, for though it had always been carefully hung up it was never to be found. Finally, fully clad, looking like Klansmen, we were ready for the hazardous journey to our sleeping-tents.

The blizzard blew itself out on the seventh day, leaving our little world quite changed. Among the dogs we had one casualty from

Blaiklock, our leader, came back with this news we could not credit it, but as we took up his suggestion to talk it over, over a cup of tea, we realised it was true.

At first a curious elation was the dominant outward emotion. Here was a challenge that we had to face together. But we realised that we would have a cold and rather cheerless winter. For myself, I was afraid, imagining the horrors of an Antarctic winter with no coal, foolhardy enough in England but unheard of here, with no shelter and no comfort. I feared that our scientific programme would have to be severely curtailed and much

of our time would be wasted. Fortunately, my worst fears were not realised. Next day depression was much more apparent and we wandered around the site not knowing where to start on the gigantic task of salvaging the buried stores. The drifts, hardening rapidly, seemed too formidable for eight to attack. It took a day to recover our equilibrium and get down to digging, which became our chief occupation for the rest of the year.

not blow down in 75 knot winds, nor tear. They gave us reasonable shelter at -63°F (-53°C), but they were by no means comfortable. The great enemy was the damp. In the really cold weather the double-down sleeping bags would remain dry for about four days only, after which the damp, frozen in these temperatures, would make itself felt. After a month the limit had been reached. The bag, instead of being a nice light fluffy



Digging out a buried tent after a blizzard. The man in the middle is wearing a sheepskin nose-band for face protection.

This blizzard virtually made certain that we would spend the rest of the winter in our crate and tents. Uprturned boats, store huts and stone caves have all been used for winter dwellings in the Antarctic. We were to use the interesting new combination of a packing case by day and tents by night. These tents, of a special polar type, pyramidal in shape and double-skinned, stood up well to the great strain to which they were put. They did

insulator, had become a stiff board-like thing with ice within the innermost layer. The performance of getting in and out of this is worthy of the music-hall. Imagine a dark evening, the wind whipping the drift high about your head. You get to your tent and you grope for the tapes that keep the sleeve-like entrance closed; having unfrozen them with the warmth from your hands you untie them and flop into the tent. What a relief

to be out of the wind! But the temperature in the tent is the same as that outside, -40°F (-40°C). Now you have the choice of lighting the lamp or the stove first. Both have their advocates, both their advantages, for with a light you can see and everything seems to be warmer; with a stove everything is warmer but you may knock something over on the way. So, on the whole, it is better to light the lamp first. Grope for the matches; if you are sensible you always keep three or four boxes at the ready, one might slip off and get lost and that would mean going back to the crate for another. Strike one and it breaks (they seem to break more easily in the cold); strike another, it breaks again; strike a third—a light. Hold it to the wick, and with patience and a little coaxing the lamp will light. On with your gloves quickly, for your hands are getting dangerously cold. Then, ‘meths’ into the primus, three matches to light it—that is, two and a half to warm it and half to light it. Be careful not to pick up the meths can with the bare hands, it is liable to burn. Soon the primus is roaring and in a few moments the tent is really warm. Then you can relax and restore the circulation.

Now to get into the bag. To roll it up in the morning, in true Scout fashion, is fatal, for it will, in the evening, be frozen in that position. Take off your boots and hang them in the top of the tent; you don't take off much else. Some, in fact, wore their boots. Gloves, balaclavas (the right and wrong way round to warm the nose), down trousers and jackets, were all popular night attire. Two blankets inside the sleeping bag were *de rigueur* at Shackleton. The smart thing was to shake the ice off them in the crate during the day. To get into the bag, break it open and get in, taking care to get into the right layer and not to ruck the blankets too much. Nothing worse than having to retrieve the blanket from the foot of the bag. Minor adjustment of blankets so as to cover your face without your actually suffocating takes about half an hour—the object is to do it more quickly than your cohabitant, so that he will have to blow out the light and put out the primus, both tasks involving disarrangements of the carefully arranged bag. Lastly, ease the zip up and you are ready to face the coldest night.

Next morning, the procedure is reversed—once again the first thing is to light the lamp and stove. No one likes doing that and you

pretend you are asleep in the hope that your partner's bladder will drive him out before yours does. I was usually unlucky but I did, therefore, have the advantage of seeing the emergence of the adult from the chrysalis. Ken, my partner, would stir a few minutes after the stove had been lit; first a small shake of the green blanket emerging from the top of the bag to remove the frost, then the whole bag, stiff and board-like, would sit up, crackling as it went. It would shake itself and slowly, very patiently, the zip would open, first being unfrozen by the warmth of the hand. Frozen zips can be a menace when natural functions call urgently! Finally, the balding imago would appear.

After some months the tents were thickly encrusted with ice, yet they remained fine shelters. All sorts of gadgets were tried to improve comfort; canvas stretched on a frame for a camp bed, an air space beneath, fibre glass on top, passage dug out in the middle, straw on the bed, blankets on top of the bag or under the bag. All these devices were tried, but it was still very cold and a winter in tents is not to be recommended.

The question that everyone asks is, “How did you get on with one another in these crowded conditions?” The answer, on the whole, is “very well”. Naturally, we had our differences of opinion, and naturally tempers occasionally flared, though not as often as at home. But no long-term quarrels, no rancour, no division, ever became apparent. I think the reason for this lay not so much in the men but in the conditions. We knew we had a tough task and that united us. We also knew that it was of no earthly use to bear a grudge for there was nowhere to go to get away from the others. No one could shut himself up in his own room and sulk—one could only sulk in public, which is most unsatisfactory, or in the icy privacy of the tent, most uncongenial. So it was that harmony reigned. We were as diverse a group as could be found anywhere. There was a diversity of background and education, of religious beliefs and ways of life, of age and experience, and yet under these conditions, and because of these conditions, we became a family. A family which stuck together during a very difficult winter. It was a family way of life that we led; we kept house and cooked, we built our shelter somewhat on the pioneer pattern. Of course, we were an all-male society; we missed the civilizing influence of women, though they figured quite

prominently in our conversation. Our direct contact with the outside world began three months after our arrival; from then on regular wireless contact kept us in touch with our families. Telegrams made the day whenever they arrived. Though it is difficult to say much in 20 words, the fact that a well-known signature often followed the often garbled messages was enough to give real pleasure. Soon all telegrams were shared so that all might have some of the warmth that they gave. Thus, our family even had its cousins and aunts about whom we could all gossip with a certain amount of knowledge.

Though the establishment of the base took very much longer than had been anticipated (in fact, when we were relieved the hut was still 30 per cent incomplete), and though our main occupation throughout the year was building the hut—which included tunnelling for our buried panels and digging out 150 tons of snow from the partially walled hut, blown there by a blizzard which came at a time when one main wall and half the roof were complete—we nevertheless completed a full scientific programme.

The first was meteorology. Full surface observations were carried out from March 1st onwards, though a twenty-four hour programme was not feasible until reasonable night accommodation could be found for the night observers. This was achieved on September 1st, though a picture of the night duty-man, huddled in his duffle coat and full outdoor equipment, in the 'met' office where the temperature hovered around 20°F (-7°C), bears evidence to the extremely uncomfortable conditions they had to put up with. Many new difficulties became apparent throughout the year in the mere technique of observations, and from these and from the observations themselves much will no doubt be learnt. Upper air investigations by means of radio-sonde balloons had to be abandoned owing to the loss of the balloon hut and the bulk of the balloon chemicals. A limited number of pilot balloon flights was however carried out during the summer. There were three "met" men, and though they were teased unmercifully their task was not enviable. Going out at three-hourly intervals in all weathers took great perseverance and not a little courage. One must experience a 40-knot wind at -40°F (-40°C), in the dark to know the hazards. It is not so much frostbite or exposure, but the mere standing up in the wind and finding your way to and from the

screen with everything obscured as in a fog. I know that they often experienced difficulty in navigating back to the crate, a mere 60 yards or so away.

A physiological programme had been devised, with the experience gained on the British North Greenland Expedition, by the Division of Human Physiology of the Medical Research Council in conjunction with Dr. Allen Rogers the physiologist with the main party. I was to carry out the first part of this. It speaks very highly for my seven companions that we managed to do as much as we did, for it did mean stripping to be weighed and to have our fat thickness measured. This may not sound too much to ask, but in the crowded conditions alluded to above, and the temperature not much above freezing, this was a somewhat irksome imposition and was, in fact, for most of us, the only occasion for a complete strip to replace worn out or too-dirty clothes. Nevertheless, continuous records were kept in an endeavour to measure by some means the acclimatization of man to the cold. Observations made on clothes worn at different stages through the year may well give some indication of this. Indoor climatic observations, apart from being somewhat startling, i.e. average sleeping temperature from August to December in the main hut was 19°F (-6°C), will give some idea of the efficiency of modern insulation and ventilation, and an accurate picture of the indoor environment in which we existed. A dental survey will perhaps give an answer to the question "Are the teeth affected by the cold?". If so, how? Sleep records of the men were maintained throughout. The work is being continued and, under improved conditions, is being extended this year to cover energy balance observations. The conditions prevailing during the first year were hardly ideal for research. For the first eight months we were herded together in a crate; then for three months we lived in one end of a partially completed hut. In November I furnished the medical room, but as the temperature rarely rose above freezing it was of no great use.

Medical work as such took very little of my time, so that I became a tolerable cook, learning to prepare meals, bake bread and cake, for eight on three primuses. I learnt a good deal about hut construction and carpentry, but never became master of the saw which continued, in my hands, to go its own way. I learnt something of meteorology, the

hazards of Antarctic engineering and any wharfie would be proud of the way I carried crates whose very appearance would have frightened me at home.

We all remained remarkably healthy in spite of the unfavourable conditions under which we lived. I recorded no bacterial infections throughout the year. We did, however, suffer early in the winter from persistent sore throats, the origin of which might have been viral or due to the cold. When the relief ship arrived, having called previously at our neighbours, Halley Bay, 300 miles to the north, and spread the common cold there, we did not even catch cold. Though the opportunity for accidents with vehicles and during building were always present, we were remarkably free of them. I think there is little doubt that in the extreme cold one becomes less careful as it involves too much effort, but perhaps we were just lucky. Our accidents were confined to comparatively minor injuries, though a blast of oxygen from a cylinder into the eye might well have proved more serious than it was.

Of the special hazards of the cold, we saw little. Though their threat is always present, sensible behaviour and avoidance of risks should prevent their occurrence. If any of them do occur inquiry will nearly always show that avoidable risks were taken. We had one case of snow blindness due to someone on the ship not wearing goggles on an overcast day. Such days seem almost to be of more danger than bright clear ones. Minor frost-bite of cheeks, nose and chin were common and are in these temperatures unavoidable, but with constant vigil, everyone watching everyone else, more serious freezing of the face can be avoided. While on the ship we had a number of swims involuntarily in the sea, temperature around 28°F (-1°C), without ill effect.

Strains and sprains due to the unusually hard work were common but rapidly yielded to treatment. Teeth gave little trouble, though I did do a number of temporary stoppings. One case of acute gastritis caused me most worry, for putting the patient to bed in a tent at -30°F (-34°C), was putting him in hardly the right environment to get quick favourable results. Diet too proved a problem—but nature won out once more. Making my round to the tent where this patient lay, was a novel experience, a contrast to the usual ward round.

My twenty-four other patients, our huskies, gave me little trouble. A few bites to sew up, two cases of boils on the feet, two undiagnosed pregnancies, were the total of my veterinary practice. One, which made my reputation as 'vet', occurred only a few days after we left England. Having given it as my considered opinion that a certain bitch was not pregnant, she delivered herself of six fine puppies two days later. The huskies were excellent patients, though they removed most accessible stitches as soon as they were inserted. They took no offence and remained friendly and pet-like.

It was only towards the end of the year that I got the medical equipment indoors, and it is a triumph to the suppliers that the contents of the box marked "Do not freeze" stood up with little damage to -60°F (-31°C). Up to that time my surgery was a small sledging-box designed to contain the requirements for emergencies in the field.

A more immediately useful research was that of our engineer, Roy Homard, who was ex officio clown to the outfit; his studies of the technical faults of our motor transport enabled the main party to make suitable modifications. All his work was done in the open air, owing to the loss of our workshop hut. This is no mean achievement, for the mere taking off of a nut at minus twenty is a major undertaking. Not only cold, but drift, conspires to make life difficult. I shall never forget the picture of the Sno-cat's engine filled to the top with snow just after one of the cylinder heads had been removed. Snow was everywhere; the hydraulic system was full, as were all the cylinders; even the cab was full of snow. You need to have a great sense of humour to keep sane when that happens.

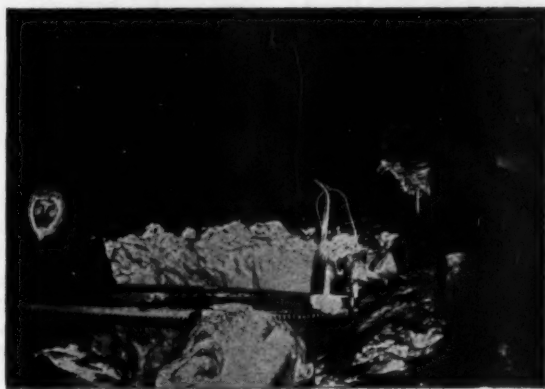
Finally, the programme included topographical survey. We fixed the base site accurately by means of numerous star sights. The extreme cold added a new difficulty, for the half chronometer that we used for these observations became distinctly unreliable if taken out into the cold, so that the time keeper had to remain indoors while the observer shouted from the roof of the crate. As spring turned to summer we began our programme of reconnaissance and survey. Our first trip was to Vahsel Bay, mapped roughly by the Filchner Expedition in 1912. On this journey we travelled with one team and two men: Ken Blaiklock as surveyor and I as number two. We managed to reach

the entrance of the bay, but owing to a vast glacier tongue failed to penetrate it. We mapped the coast, accurately fixing the position of the Moltke Nunatak, a rock outcrop—the only one for 200 miles—and found seals which we required urgently to feed the dogs, for we had lost our dog food on the tide. We collected these some three weeks later with a Weasel on the only mechanical journey we ever made. Our other journeys, over previously unexplored ice, penetrated in stages to nearly 200 miles south, where we reached a new range of mountains. These, the Theron range, rise almost sheer from the flat shelf to a height of 3,000 ft. above the ice (3,700 ft. approx. above sea level). We first sighted the mountains from 90 miles away; this was only possible because of the clear atmosphere and the high refraction.

effort. Most of the time we travelled at night because the sun during the day burnt our faces in spite of all we could do, and made the snow rather soft and sticky in spite of temperatures around 25°F. We spent Christmas 60 miles from Shackleton, but celebrated it with a magnificent dinner culminated by "medicinal" brandy. Even the dogs were given extra food, and one of them enjoyed the balloon which had decorated our tent.

Our year was nearly up, and in spite of some very bad luck and some foolish mistakes we had almost completed what we had set out to do.

Now, at Shackleton and at South Ice—the advance base at 82° south—scientific observations are continuing and preparations for the long journey over unknown country with



The seal for dog food was frozen hard and was sawn up into rounds and then chopped into portions. Man on the left is wearing nylon-fur anorak. Light provided by a paraffin pressure lamp.

In their crags skua gulls and snowy petrels appeared to be nesting. We saw great flocks of these birds and found a number of dead skua chicks lying around the foot of the cliffs. The nearest ground for them must have been well over 150 miles away! We took geological specimens. On a subsequent aerial visit we found coal and fossils, a discovery of immense geological significance and interest, for they prove once more that this region of desolate ice deserts was once a thriving semi-tropical forest area.

We were out on this our last and longest journey for twenty-one days, about the maximum length for an unsupported one team

unknown hazards are well in hand. In a year's time we shall know the outcome. In the years to come we shall, bit by bit, get the results of the observations that have been carried out and man will know a little more about the globe on which he lives.

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A VISIT TO THE UNIVERSITY COLLEGE OF THE WEST INDIES

by JOHN W. S. BLACKLOCK

DURING APRIL, at the request of the University of London, I went to University College, Jamaica, partly to take part as Visiting Professor in the routine work and the teaching and partly to examine in Pathology in the Final M.B., B.S. examination. Your editor asked me to write a short article on the College in order to foster good relations between an old foundation like Bart's and a very young one like that in the West Indies.

The University College of the West Indies was founded as a result of the recommendations of the Irvine Committee in 1944. This Committee was named after its Chairman, Sir James Irvine, Principal and Vice-Chancellor of St. Andrew's University. Their recommendations were accepted by the British Government and the Governments of the Colonies in the West Indies, including British Honduras. Thus University College, West Indies, came into being late in 1946. Her Royal Highness Princess Alice of Athlone, G.C.V.O., G.B.E., V.A., was installed as its first Chancellor in 1950. The University is one of the youngest in the British Commonwealth, and at present is going through many of the difficulties associated with youth, more particularly as with the coming of Federation in the Caribbean area this has raised problems of financing such a large educational undertaking—always a costly business to any government.

At present there are three Faculties in the College, Arts, Science and Medicine, though it is proposed, if funds become available, to have other Faculties such as Engineering. In addition there is a large Department of Extra-Mural Studies which organises extra-mural courses in the numerous West Indian territories each of which has its own committee for extra-mural studies. Lecturers are sent out from the College to take part in these courses in order to encourage a higher standard of education for both youth and for adults. This is no mean undertaking from a geographical consideration when one looks at a map of the Caribbean area. Another important project is the Institute of Social and

Economic Research where the social and economic problems which confront the area are studied by a team of expert research fellows.

The College and the Teaching Hospital are situated at Mona, about seven miles from Kingston, Jamaica. The site is almost 700 acres in extent and is situated at the foot of the Blue Mountains, which, rising to over 7,000 feet, form a most impressive background. In addition to the Teaching Hospital there are excellent buildings, housing the Senate House and the Registry, the Library and the various lecture theatres and laboratories, a large Students' Union and two Halls of Residence for men students and one for women. In addition there are villas and flats for the various members of the teaching staff. Thus the teachers and the student body live together in a happy communal existence.

The Teaching Hospital has about 300 beds devoted to medicine, surgery, obstetrics and gynaecology. This hospital, which is very modern, has been approved as a Teaching Hospital by the University of London and has Professors of Medicine, Surgery, Obstetrics and Pathology. At present there are about 90 students receiving clinical training and the amount of teaching material is very varied comprising, as one would expect, a fairly large number of tropical conditions, though when I was there I saw two cases of very acute rheumatic fever, one of which died, with a typical rheumatic carditis such as I used to see in Glasgow many years ago.

The athletic pursuits of the student body are well catered for as there are large playing fields for football, cricket, hockey, tennis and a swimming pool of Olympic size. It was most interesting watching the games of cricket which were played with a jovial enthusiasm, lacking that tenseness which is so characteristic of cricket played in England by men or by women. One would say that cricket teams training under such conditions will prove very formidable rivals for any English team. Unfortunately, the football season had passed

when I was there and I did not have the pleasure of seeing my favourite game. In the water the students are most expert and on a few occasions I actually saw students swimming the whole length of the swimming pool under water.

The College has been accepted by the London University into a scheme of Special Relationship and under this scheme, *inter alia*, Degree Examinations are conducted by examiners from the University of London in association with the College examiners. The results of any Degree Examinations are, however, finally determined by the London examiners. In the Faculty of Medicine, the Degree Examination in the various subjects are similar to those held in London as well as the standard of a Pass and for Honours. Examining these students in Pathology, one was naturally impressed with their greater knowledge of tropical pathology than that of students in Great Britain. Like the students at home, however, there were those who had obviously done a good deal of work and were assured of a Pass, those who had done a little work and were border-line and a few who had practically done none and were assured of a Fail. Indeed, examining them I formed the opinion that there was no difference between students in Jamaica, in Glasgow or Edinburgh, Dublin or London, Oxford or Cambridge—the only difference is in the examiners. There are always the few students who appear to enjoy the undergraduate life and neglect their studies so that the examiner has the pleasure of meeting them again. Indeed many of them are personalities and one enjoys meeting them more than once.

In the clinical subjects, students act as clerks and dressers in the wards and outpatient department, very much in the same way as students in a London Medical School. Laboratories are all extraordinarily well equipped with the latest American and Continental apparatus. When I enquired where they obtained the money and the facilities for the importation of such materials, I was informed that they were mostly supplied by various American Foundations. I found myself coveting some of this equipment for the Pathology Department at Bart's.

As elsewhere, student societies and clubs were legion, there being no less than about 30 when I was there. Some of these were of a most intellectual nature, such as the Physical Mathematical Society, the Modern Languages Society and, as in Bart's, the

Camera Club seemed to have much the same difficulties in finding a suitable place for a dark room.

Students are required to reside in the Halls of Residence during the first three years of their course, the annual charge for board, lodgings, games and medical attention being at present £130. This, however, is subject to fluctuation depending on the cost of living. There are three Halls of Residence, Chancellor Hall and Taylor Hall being for male students and Irvine Hall for women; each accommodates about 150 students. The students in the Halls were taken from various Faculties and from various places in the Caribbean area so that a free exchange of experiences in the various subjects which they are studying is possible and also, in view of the approach of Federation in the area, the students are able to discuss with each other and understand the problems of their respective islands. Each student had a study-bedroom but instead of windows, there were slatted doors, as with hurricanes no glass can stand up to the wind pressure and slats were found better. The students, however, told me that during hurricanes everything in the room became wet with the driving rain. There were also the usual other rooms found in any student residence: good dining rooms, small rooms for social functions and, in the case of the Halls for male students, excellent bars. Students who are resident elsewhere in the Caribbean area than Jamaica are provided with a free passage to and from their place of residence at the beginning and at the end of their courses. For students who desire to return home during vacation, reduced fares are available. One rather gathered that everything was being done to encourage education amongst the peoples of the Caribbean and there was no attempt to distinguish between black, brown or white. Indeed they all mixed freely and there has been much intermarriage between negro, white, Indian and Chinese, with a result that one often had difficulty in deciding just what they were.

While I was there the students at Chancellor Hall invited me to one of their end-of-term dances which started at 8 p.m. and finished with breakfast at 6 a.m. It was a colourful assembly as the dusky ladies are very dress-conscious and their frocks, which were of brighter colours and more frilly than those at home, had a kaleidoscopic effect. When these students danced, every muscle in

their bodies moved and it was a spectacle which would have delighted the heart of any anatomist to see "the anatomy of motion". Even at these dances there was no suggestion of a colour bar: black danced with white and white with brown. Part of the music was provided by the steel band of the Hall which played some calypsoes particularly for my benefit and tried to instruct me in the problems of percussion and sounds of these steel instruments. It was a thirsty business, however, dancing in the tropical heat and there was an abundance of liquid refreshments to suit all tastes, served in the open air in the courtyard under a tropical moon, with rather a vicious type of mosquito making merry on

the more sensitive skins. The next morning I thoroughly appreciated the results of multiple histamine reactions.

In the end, I was left with the impression that this young College was a most virile community, interested in doing all they could for the Caribbean area and its people. They were all agreed that Federation was a good thing, but even in spite of this they were very proud of being Britons and had an intense loyalty to the Throne. With such a spirit in the youth the future of this area is undoubtedly assured, provided the politicians are disregarded and a few statesmen are available to guide the destinies of these people.

SPORTS DAY

THE SEVENTY-FOURTH Annual Sports were held at Chislehurst on Saturday, June 22.

After last year's debacle when rain had fallen incessantly throughout the afternoon, we were particularly anxious for a fine day and the organising committee had been keeping their fingers crossed for weeks. And this year all the portents seemed propitious. There had been no rain at Chislehurst for many weeks; the grass was dry and parched and thirsty for rain. Saturday morning was perfect. Clear skies and a fanning breeze. But then, at lunchtime, it began to cloud over. Thick grey clouds from the northwest, heavy with rain. At two o'clock it began to spatter . . . as it so turned out, that was all the rain we had, but the damage had been done for the lowering clouds must have dissuaded many from making the journey to Chislehurst. In retrospect, it seems that we had chosen the coldest and most cheerless afternoon in a glorious June. However, the treachery of the weather was soon forgotten in a full afternoon's racing.

The best performance of the afternoon was the record-breaking shot putt of J. Stevens which bettered the existing record by 8½ inches. Though no other records were broken, several fine performances were given during the course of the afternoon. In the Mile, C. P. Roberts outdistanced all

the rest of the field to win with the greatest of ease in 4 minutes 38.3 seconds. Roberts also won the High Jump and 880 yards and was again the outstanding performer of the afternoon this year. The 440 yards proved an exciting race with G. Halls just holding off a strong challenge by D. O'Sullivan to win by two strides in 52.9 seconds. D. O'Sullivan himself completed a double, winning the 100 yards and Hurdles. In the field events, the fine javelin throwing of J. A. Garrod was conspicuous.

The Visitors' and Children's races both received good support; no less than three heats having to be held for the egg and spoon races. In the Sack race, Miss J. Swallow gave further proof of her incontestable supremacy.

Despite a stirring victory by the Clinical C team in the 4 x 200 yards relay, the Clinical B team won the inter-year contest easily, and thus the coveted barrel of beer. Their victory was a triumph for four athletes—C. P. Roberts, J. A. Garrod, R. G. Thomson and C. Craggs who amassed almost all the winning total between them.

Following the last event, Cups and Prizes were presented in the pavilion by Mrs. W. D. Coltart. A new feature of the prize-giving this year was the presentation of a new President's Cup to the athlete who, in the

opinion of the President of the Sports and the Captain of Athletics, had set up the best performance of the afternoon. The cup was awarded to J. Stevens for his record-breaking shot putt.

The Captain of Athletics, Arthur Tabor, in a short speech thanked Mrs. Coltart for so graciously presenting the prizes and recorded his gratitude to Mr. and Mrs. White, to whom so large a measure of the success of each Sports Day is due.

B.D.G.H.

Results—

- 100 Yds.**—1, D. O'Sullivan; 2, G. Halls; 3, R. Fell. Time: 10.8 secs.
220 Yds.—1, G. Halls; 2, J. Hedley-Whyte; 3, D. Alder. Time: 24.1 secs.
440 Yds.—1, G. Halls; 2, D. O'Sullivan; 3, C. P. Roberts. Time: 52.9 secs.
880 Yds.—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 2 mins. 4.6 secs.

1 Mile.—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 4 mins. 38.3 secs.

3 Miles.—1, C. P. Roberts; 2, R. G. Thomson; 3, B. W. Perriss. Time: 16 mins. 15 secs.

120 Yds. Hurdles.—1, D. O'Sullivan; 2, A. S. Tabor; 3, D. Alder. Time: 16.5 secs.

High Jump.—1, C. P. Roberts; 2, T. B. Duff; 3, J. A. Garrod. Height: 5 ft. 7½ ins.

Long Jump.—1, A. S. Tabor; 2, M. Noble; 3, P. Fasan. Distance: 19 ft. 9 ins.

Javelin.—1, J. A. Garrod; 2, J. Stevens; 3, E. Makin. Distance: 153 ft. 5 ins.

Weight.—1, J. Stevens; 2, C. Craggs; 3, E. Makin. Distance: 39 ft. 4½ ins. (New Record).

120 Yds. Handicap.—1, C. Craggs.

Housemen's 100 Yds.—1, Dr. W. H. Havard.

Pole Vault.—1, J. Sugden; 2, C. P. Roberts; 3, B. D. G. Hill. Height: 8 ft. 6 ins.

Tug-of-War.—Students beat Staff, 2-1.

Inter-Year Relay.—1, Clinical C; 2, Clinical B; 3, Clinical A.

STUDENTS' UNION

COUNCIL MEETING

A meeting of the Students' Union Council was held in the Small Abernethian Room at 1.15 p.m. on Wednesday, 21st August.

The following matters were discussed:

1. *Students' Union Guide.* A letter from the Dean was read saying that he would subscribe the sum of £25 towards the new handbook which the Students' Union was bringing out. The handbook was to contain specific information on the activities of the various clubs in the hospital. The letter asked that the word "Handbook" be left out of the title lest it be confused with the College Handbook. The name of "Students' Union Guide" was adopted.

2. *Prints for the Abernethian Room.* It was generally agreed that the prints in the Abernethian Room were insipid. A sub-committee consisting of

Messrs. White and Badley was set up to buy four suitable prints and also to look into the matter of getting original pictures painted by members of the Hospital to be hung in the Abernethian Room on loan.

3. *Students' Union Christmas Card.* The question of a Students' Union Christmas card was discussed. A sub-committee consisting of Messrs. Johnson and White was set up to look into the matter of producing such a card. The final choice would be made from a series of prints which would have been put forward previously for approval.

4. *Honorariums.* The Council approved the award of honorariums of £30 and £20 per annum respectively to the Editor and Assistant Editor of the Hospital JOURNAL. This was a reusucitation of a practice which was discontinued in 1953 when the JOURNAL was operating at a financial loss. It was pointed out at the Meeting that the Journal is now working in conditions of solvency.

SPORTS NEWS

VIEWPOINT

THE HIGHLIGHT of the previous month's activities has undoubtedly been, in theory at any rate, the Cricket Cup Final. However due to some whim of popular favour, or perhaps to poor publicity this event passed almost unnoticed. In spite of this, to have had two finalists in one year in two major sports and to have retained the Ladies' Hockey Cup is a sporting record of which the Hospital may be justly proud. The Cricket Cup was last won in 1948, and it is unfortunate that after a lapse of nine years this feat could not be repeated.

In a Hospital where almost every sport is represented in some way or other it is strange that there should be no opportunities for playing Rugby Fives. Enthusiasts undoubtedly exist, but at the moment the cost of building a court far exceeds the limited demand. The old court is used for the storage of oxygen cylinders, and will continue to be so used until some spirited body can persuade the authorities to provide alternative accommodation, or provide a new one. The latter possibility seems extremely remote.

CRICKET

Hospitals Cup Final

St. Bartholomew's Hospital v. Guy's Hospital.

Played at St. Mary's Hospital ground, Teddington, on 29th, 30th and 31st July, 1957., and resulting in a win for Guy's Hospital by 8 wickets.

It was of course a disappointment to see the second Final of the year lost, but although convincingly defeated on paper, the hospital might well have held for a draw on the final afternoon.

Guy's won the toss and batted first on a wicket which although looking green, became progressively more easy as the game went on. They at once established a hold on the match which they were never to lose by putting on 118 for the first wicket, and it was this period before lunch on the first day that did much to seal the game. Catches went over the fieldsmen or dropped short, several run outs and confident appeals were not allowed, and the hospital luck seemed at rock bottom. Guy's then proceeded to consolidate their position with an excellent century by Dyde and although the hospital struck back to take some cheap wickets, were able to declare at 346-8 wickets.

Bart's looked as though they would last out the final hour of the day without losing a wicket, but Pagan was bowled around his legs during the last over to be replaced by Mitchell as a night

watchman. Thus at the end of the first day, with Bart's 39-1 in reply, the honours had gone very much to Guy's.

When play was resumed the following morning, Stark, Juniper and Whitworth fell before lunch, and it soon became clear that the value of an innings was to be assessed in minutes rather than runs. When Mitchell, who had miraculously survived for 2½ hours, left, wickets fell steadily and Bart's were all out for 148. Guy's then enforced the follow on, with 198 needed to make them bat again and a day and a half left for play. At the end of the day 140 had been scored for 3 wickets and Bart's were thus left with a chance.

On the final day Whitworth, who had batted with great determination, was caught out at 96 and thus missed a very well deserved century. His innings lasted 5 hours and 10 minutes and was of immeasurable value in keeping the game alive. Marks batted stubbornly for a valuable 44, but although the last wicket put on 23 runs the game was hopelessly tilted towards Guy's. Bart's were thus all out for 268, leaving Guy's only 71 to win in two hours. If only the hospital had been able to hold on a little longer in the second innings the match could so easily have been drawn. Guy's knocked off the necessary runs with ½ hour to spare Dyde ending the proceedings appropriately enough with a six. They had seemed the better balanced side and won on merit, but one may mention in retrospect that Bart's were without the services of some four or five of their more talented players.

Results—

1st Innings.

Guy's: 346 for 8 declared (Dyde not out 104, Puddenhams 68, Pagliers 66) (Whitworth 4 for 112).

Bart's: 148 (Stark 25, Mitchell 25, Whitworth 25) (Dyde 6 for 40).

2nd Innings.

Guy's: 72 for 2 (Garrod 1 for 20, Stark 1 for 11).
Bart's: 268 (Whitworth 96, Marks 44, Juniper 32) (Dyde 3 for 68).

The Sussex Tour

The Annual Tour took place once again in Sussex from August 4th—9th, with the team based at Rottingdean. The weather was uniformly excellent except for the last two days, on one of which the Keymer and Hassocks game was abandoned. Activities centred around the Plough and the Pitch and Putt Course as usual, though some members created a startling and unprecedented feat of bathing every morning before breakfast.

From the point of view of the results, the tour was most successful; four games being won and one lost. Responsibility for the opening match must rest with the secretary who mustered the team two hours before play was due to begin, and after a prolonged and social lunch Bart's were not given the opportunity to field and allow heads to clear. A new and enjoyable fixture was that against Ditchling, and a win over St. Andrew's,

Burgess Hill, for the first time, is also worth recording.

Once again we are indebted to so many long-suffering landladies in Rottingdean for our accommodation, and it is to be hoped that their patience will not desert them next year.

Results—

- 4th August. **v. Hurstpierpoint.** Lost by 3 wickets. Barts 72. Hurstpierpoint 73-7.
- 5th August. **v. St. Andrew's, Burgess Hill.** Won by 8 wickets. St. Andrew's 163 (A. Garrod 4-51). Barts 165-2 (H. B. Ross 86 not out, A. Whitworth 63 not out).
- 6th August. **v. Rottingdean.** Won by 7 wickets. Rottingdean 116 (A. Whitworth 36 not out). Barts 119-3 (J. Stark 64 not out).
- 7th August. **v. Ditchling.** Won by 4 wickets. Ditchling 115 (A. Anderson 4-14). Barts 119-6 (A. Whitworth 36 not out).
- 8th August. **v. Barcombe.** Won on 1st innings by 60 runs. Barts 109 (A. Whitworth 54). Barcombe 49 (A. Garrod 6-16).

SAILING

On July 13, the Secretary helmed the hospital boat in an inter-hospital race. The race was in the new 12 square metre sharpies and was sailed in a gusty fresh wind. Only three hospitals started, Bart's being 10 minutes late on the start. St. George's were soon overtaken after Branklet and our lead was rapidly increased as we went on

to round Potton. Unfortunately, there was a double-entendre in the set course and the hospital boat went on around Redward, while St. George's went round Branklet for the long tack home, and were then 25 yards ahead. The Bart's boat then overtook St. George's again, but later went aground and came in third finally.

Result

1, Westminster; 2, St. George's; 3, St. Bartholomew's. Helmsman—R. M. Ridsdill-Smith; Crew—Miss W. Donaldson.

On July 27, the Secretary again represented the hospital with R. Simons and C. Birt crewing. The race started in a Force 2 wind that blew up soon after rounding Redward, and became a gusty Force 5-6 wind for about 15 minutes; all the sharpies racing were hard put to keep upright, particularly those of London and Bart's who had light crews. The wind slowly moderated over the rest of the course.

The race was never in the balance as the London got away soon after the start and could not be caught. Due mainly to the high winds, only three boats were racing.

Result

1, The London; 2, St. Mary's; 3, St. Bartholomew's.

Helmsman—R. M. Ridsdill-Smith; Crew—R. M. Simons, C. Birt.

This is the end of the Inter-hospital racing season and we have finished fairly near the top of the list. The thanks of the Club must go to those who went down to Burnham to sail in weather conditions which were particularly tricky and which seemed to prevail whenever we have to race. We hope to see them again next season.

BOOK REVIEWS

SPORTS INJURIES — THEIR PREVENTION AND TREATMENT by Donald F. Featherstone. Foreword by Sir Arthur Porritt. pp 195. 35s.

This book will be of interest to anyone concerned with those violent forms of exercise which produce injuries, but it is not written for Medical Students except perhaps in their capacity as athletes, and in no sense of the word is it a Text Book.

The Author is a qualified Physiotherapist and has had a great deal of special experience in his employment by the Southampton Football Club and Hampshire County Cricket Club: he has been in daily, almost hourly, contact with injured players, and the book is an interesting account of his views and experiences. As a result of his experience with athletes of all sorts the author is convinced that a different approach and a greater sense of urgency are required adequately to cope with the recent injuries of everyday life. To cater for the need he advocates the high pressure systems of treatment which are outlined in this volume. One almost gets the impression that the author believes that rate and quality of recovery depend more on treatment than on the nature of the injury itself, and, indeed, this is a view held by many, if not most, athletes. Mr. Featherstone often draws attention to the need for accurate

diagnosis of the lesion before treatment is prescribed, but, of course, accurate diagnosis is not the province of the Physiotherapist or the Trainer, and it is a common experience that wastage of athletic time is more often the result of wrong diagnosis than of delay in instituting treatment. Chapter III, which deals with examination and diagnosis, could well have been omitted, and the hints on diagnosis which appear in the various sections are not of great clinical value.

When he discusses techniques of treatment, Mr. Featherstone is on much firmer ground—and here his enthusiasm shines out from every page: he understands athletes and their needs, they like him, he speaks the same sports language as they do, and to them a friendly but knowledgeable approach counts for more than higher medical qualifications.

W. D. COLTART.

TEXTBOOK OF MEDICINE edited by Sir John Conybeare and W. N. Mann, 12th ed. E. & S. Livingstone Ltd. pp 859. 42s.

We welcome, after a lapse of three years, another edition of this popular and informative textbook. Many of the sections are written by the editors and by other members of the staff of Guy's Hospital, but the contributors include numerous eminent physicians from other hospitals, not including our own.

There are many improvements on the eleventh edition. A large proportion of the articles has been completely rewritten, and new ones added. The main change is a new section on Diseases of the Nervous System by Dr. Denis Brinton which has replaced that by Sir Francis Walshe. The new articles are mainly on Diseases of the Skin and of Metabolism.

The book contains 39 illustrations, mainly electrocardiograms, and 32 X-ray plates. There are, unfortunately, no photographs.

At the risk of being unfairly selective, one may mention the section on Respiratory Diseases as being exceptionally lucid compared with other textbooks, while that on the Cardiovascular System is confusing in places.

When fact borders on dogma, there is on the whole surprisingly little difference from the opinions to be heard at Bart's. However, those who have done the Infectious Fevers course (whether residential or not), may be surprised to note the absence of any mention of the serum anti-streptolysin O titre in the diagnosis of rheumatic fever; and in the account of the Paul-Bunnell reaction the exciting behaviour of the heterophile antibodies with ox red cells and guinea pig kidney is left entirely to the reader's imagination.

Having used this book regularly for some weeks, your reviewer has no hesitation in recommending it warmly to other students.

J.S.P.

POTT'S PARAPLEGIA by D. L. Griffiths. H. J. Seddon and R. Roaf. Oxford University Press. pp xiv+129, with 48 figures and 32 tables. 50s.

In 1779 Percival Pott published his "Remarks on that kind of palsy of the lower limbs which is frequently found to accompany a curvature of the spine and is supposed to be caused by it." Paraplegia caused by tuberculous disease of the spine is now called Pott's paraplegia, and tuberculosis of the spine is now called Pott's disease. In the advances that have taken place in the understanding and treatment of Pott's paraplegia, other Bart's men also have played a remarkably leading part. The conservative treatment is epitomised by rest. Of this, Hilton of Guy's was the pioneer and Thomas of Liverpool the high priest, but the scientific development was due to Howard Marsh of Bart's and the Alexandra Hospital and to Gauvain of Bart's and Alton, no less than to Robert Jones of Liverpool. The phase of expectancy culminated in the classic publications of R. Weeden-Butler of St. Thomas's and H. J. Seddon of Bart's and the Royal National Orthopaedic Hospital (1935). Their work marked an advance in our knowledge of the pathology of the disease and in its conservative treatment, and gave an assessment of the French revival of what was really Pott's own therapeutic contribution of a century and a half before, namely decompression of the cord by emptying the abscess, but with Listerian refinement. The modern phase, facilitated by the antibiotics, has been the development of bigger and better methods of doing this, with also removal of avascular material and of all mechanical obstructions. The pioneer has been Norman Capener (1954), of Bart's and Exeter, with

his operation of lateral rhachotomy, which he first performed in 1933 with the object of dealing with the actual cause of the cord compression directly. A very similar operation has since been developed by Seddon, by Lloyd Griffiths of Manchester, by Norman Dott and G. L. Anderson of Edinburgh, and by Robert Roaf with the special opportunities he had in India where the disease is common. The present book by some of these workers pays particular attention on this last operation, known as antero-lateral decompression, of which there are observations on fifty consecutive cases.

This work is comprehensive, extremely well-written and illustrated, and entirely up-to-date. It gives the present picture of a disease that the diminution of tuberculosis has not yet eliminated from Western countries and that is still common in Africa and Asia.

H.J.B.

DE MOTU CORDIS by William Harvey. Translated from the original Latin by Kenneth J. Franklin. Blackwell Scientific Publications, Oxford. 17s. 6d.

It is not easy for a translator to achieve a rendering which is agreeable to read and yet remains accurate to the original text, but Professor Franklin has succeeded. And it is pleasing to find the clarity of Harvey's thought matched by the direct style of his English.

The book itself is delightfully set out. The Latin, however, is printed after the English translation and had the texts been printed in parallel, comparisons would have been facilitated for those of us whose Latin has become a little rusty. Moreover, in the present form the illustration pertinent to the English text on page 84 is only to be found opposite the Latin text on page 186, and this is a little confusing.

But these are small criticisms in a book that presents one of the fundamental discoveries in physiology in a clear style and in an attractive form. It is, moreover, a book which should appeal to the general reader, for *De Motu Cordis* is not just another scientific treatise but the earliest example of the application of the scientific method to a physiological problem.

A. B. M. McM.

ANATOMY FOR NURSES by D. V. Davies, E.U.P. Ltd. 20s.

The amount of theoretical knowledge needed by a nurse has always been a matter of controversy. It is fairly easy to decide where the boundaries lie in medicine and surgery—nurses want to know what a patient with a certain disease complains of, what treatment may be ordered, how she can relieve his discomforts, and whether he is likely to get better. Writers of textbooks on such subjects will not have great difficulty in deciding the scope of their work.

The writer of an anatomy book is less fortunate. A study of anatomy and physiology is basic to learning about disease, carrying out treatments effectively and safely, or helping in the theatre, but how extensive this knowledge should be is highly debatable. If he simplifies his material unduly, reviewers will eagerly point out the omissions; if his work is full and detailed he will be told it is too difficult for nurses.

Professor Davies has decided to write a full book, as might have been expected from such an eminent anatomist. It consists of 364 pages, and physiology is not included. The type is attractive and the price most reasonable for such a production, by present day standards. The style is a pleasure, all the greater because nursing textbooks are not always as distinguished in manner as in matter. It is lucid and freely moving and not encumbered with useless names. The chapter on joints might be especially commended from this aspect; it is a subject often cluttered by terms never met except in textbooks.

The chapter on the anatomy of babies is an unusual and interesting addition, and space has been found for allusions to practical application of anatomy. Professor Davies knows, for instance, that the outer aspect of the thigh may be a safe site for intramuscular injections, but it is also the most painful.

The line illustrations are plentiful, and in many cases of a kind that a student nurse could reproduce in her examinations. Not all are easy to understand, e.g. Nos. 68, 207, 279.

As to its suitability for student nurses, many could learn from it with profit and pleasure. Perhaps the nurses who will find it most valuable, however, are those teaching either in wards or classroom; graduates who feel they can profitably increase the modicum of knowledge they gained in their three pre-clinical months; and those taking examinations like the Diploma of Nursing. It will be interesting to see the companion volume on physiology.

W. E. HECTOR.

TUBERCULOSIS NURSING by Jessie G. Eyre. H. K. Lewis & Co. Ltd. 25s.

Thirty years ago pulmonary tuberculosis was a common disease of young people, with a high mortality and a terrifying reputation. Those who contracted it had to expect at the best long periods in sanatoria in the country divorced from the community, leading a highly unnatural life in the peculiar atmosphere that enclosed staff and patients together.

Today there has been a spectacular fall in mortality, although there is little change, as the Foreword correctly states, in the number of patients attending clinics (including our own). An atmosphere of hope and activity pervades the subject, initiated primarily by the surgeon and maintained by the introduction of antibiotics. This book reflects the modern attitude to tuberculosis as a disease that can be attacked on many fronts. There are chapters on incidence, immunity, the prevention of spread, chemotherapy and the practical problems associated with it, and rehabilitation and after care. Collapse therapy, the importance of which has declined so markedly, is covered briefly but adequately. Resection received due consideration as a form of therapy.

Tuberculosis is a disease greatly dreaded by young nurses, and the section on staff health recognises this. There are few other diseases in which the interactions and reactions of staff and patients are more important.

The format of this book is of the usual high standard of the publishers, and the price reasonable for a book which may claim to cover its subject completely from the student nurse's aspect.

W. E. HECTOR.

Trouble in the Hypothalamus

by *PODALIRIUS*

"Oh, dear, I feel so sleepy," said the hypothalamic cell. "It must be all this pyruvate. What's it doing here?"

"No wonder you're sleepy," said his friend the leucocyte, who had come to have a chat. "Everyone feels the same—you're just unduly sensitive. And it's not only pyruvate, it's pyruvic aldehyde too—and that's even worse."

"Yes, I know, I know," said the hypothalamic cell, who was inclined to be a little testy. "What I want someone to tell me is, what's it doing here?"

"Well, you see," said the leucocyte, "it all starts with glycogen, and then that turns into glucose, which turns into glucose-1-phosphate, which—"

"Yes, yes, I know, I know," said the hypothalamic cell again—rather rudely, for the poor leucocyte was doing his best. "Then it goes through the whole ragamadolio to pyruvate, but after that the pyruvate disappears. Or should do. Why doesn't it?"

The leucocyte was very patient, though he realised that these highly specialised cells overrated their own intelligence and importance. "It's usually oxidised; but that needs co-carboxylase."

"Well?" The hypothalamic cell was really very drowsy.

"Don't you see (you silly old neurone) that thiamine is needed for co-carboxylase; and the boss just hasn't been taking enough? Since he had that operation, his appetite hasn't picked up." But by now the hypothalamic cell was snoring.

"Oh dear," said the leucocyte, "now he's asleep, the boss's appetite will get worse than ever."

"Oh, what a wonderful morning!" carolled the hypothalamic cell. "I feel I could beat up a Beta cell! But why do I feel so good?"

"It's because the pyruvate's gone," said the leucocyte. "Gone? Where to?"

"Oxidised! Somebody told the boss to start taking Bemax, and now he's fine."

"Bemax? What's that?"
Really, these neurones! And they think they know so much.

"Bemax," said the leucocyte, "is stabilised wheat-germ. It contains lots of thiamine, and that's how all the pyruvate got oxidised. And it contains all the other important B vitamins. It's the richest natural vitamin-protein-mineral supplement. The boss just sprinkles it on his food."

"Jolly good. I hope he keeps it up."
"So do I."

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BOOKS RECEIVED

Inclusion in this column does not preclude review at a later date.

AIDS TO MATERIA MEDICA AND THERAPEUTICS by J. W. Hadgraft, Vth Edition. Baillière, Tindall & Cox, pp. vii + 259, 10/6.

AIDS TO OPHTHALMOLOGY by P. McG. Moffatt, XIth Edition. Baillière, Tindall & Cox, pp. vii + 282, 10/6.

AIDS TO PATHOLOGY by John O. Oliver, XIth Edition. Baillière, Tindall & Cox, pp. viii + 347, 10/6.

AN INTRODUCTION TO ELECTROCARDIOGRAPHY by L. Schamroth, Blackwell Scientific Publications, Oxford, pp. 60, 12/6.

A POCKET OBSTETRICS by A. C. H. Bell, IVth Edition, J. & A. Churchill, pp. viii + 156, 10/6.

EMERGENCIES IN GENERAL PRACTICE. Specially commissioned articles from the British Medical Journal. Butler & Tanner Ltd., Frome and London, pp. 470, 25/-.

SPORTS INJURIES by Donald Featherstone, John Wright & Sons, Ltd., 35/-.

SPOT DIAGNOSIS compiled by the Editors of the British Journal of Clinical Practice, Vol. III, Harvey & Blythe Ltd., pp. 141, 10/6.

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W. J. HAMILTON, D.Sc., M.D., F.R.S (EDITOR)
Professor of Anatomy in the University of London

J. M. YOFFEY, D.Sc., M.D., F.R.C.S.
Professor of Anatomy in the University of Bristol

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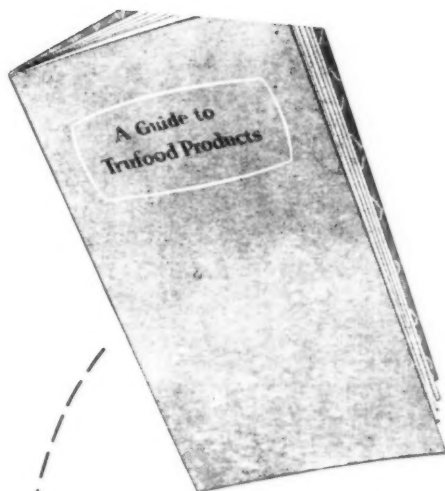
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